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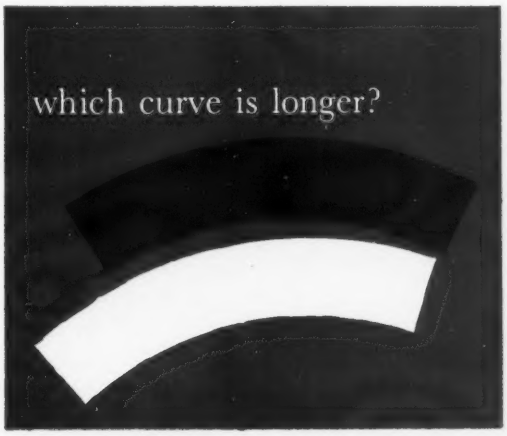

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1. Griffith, R. S.: Antibiotic Med. & Clin. Therapy, 7:129, 1960.

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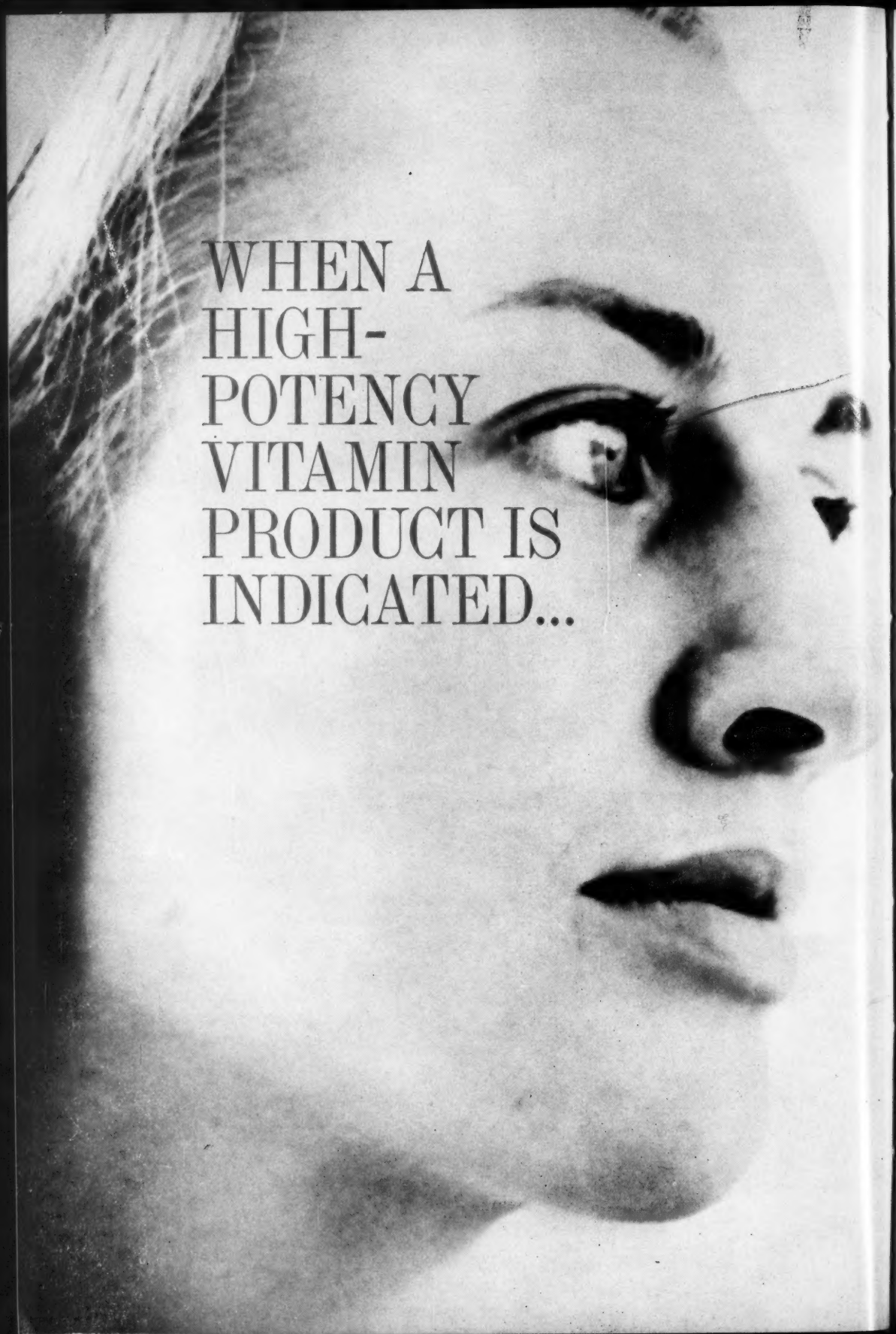
WHEN A
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INDICATED...

MARYLAND
STATE MEDICAL JOURNAL
Volume 10 November 1961 Number 11

YOUR MEDICAL FACULTY AT WORK

John Sargeant
Executive Secretary

The Executive Committee and Council of the Faculty met on September 14, 1961, and took the following actions:

Executive Committee

1. Authorized the Treasurer, Howard B. Mays, M.D., to select an *informal* committee from among the members of the Council to advise on selection of an Investment Counselor, to develop policies for the future in connection with investment and reinvestment of Faculty funds, to assist in preparation of budgets, and to assist in connection with specific problems as they arise.

2. Heard of the appointment of Clayton Norton, M.D., of Arnold, Maryland, as the Faculty's representative on the State Department of Public Welfare Advisory Committee on Foster Care.

3. Authorized the Secretary and Executive Secretary to refer items directly to various Faculty committees for consideration and report. The Executive Committee members are to be given weekly reports on items so referred, whenever necessary.

4. Expressed sympathy with a member's complaint against United Mine Workers of America Welfare Fund's restrictions on Freedom of Choice of Physician, but stated nothing could be done by the Faculty in this connection.

5. Heard a plea from Wicomico County Society representatives for assignment of staff personnel on a regular basis to this area, but took no specific action except to instruct staff to continue to devote as much time as is possible to this area and to assist whenever they can. The Wicomico County Society is engaging in public relations activities, which we encourage.

6. Agreed to suggest to the Hospital Council that a joint meeting of the Medical Staff Section of this group and the Faculty's Council might be desirable to

discuss areas of mutual interest and concern.

7. Agreed to schedule as soon as practical another joint meeting of the Physician/Hospital Blue Cross Conference Committee.

8. Decided to submit to all members of the Faculty's Council a proposed plan for effective hospital utilization that had been developed through Hospital Council sections, in order that an opinion might be given the Hospital Council, which had requested comments.

9. Agreed that discussions with respect to nursing home care should be entered into in connection with the Physician/Hospital/Blue Cross Conference Committee.

10. Heard a report from the National Association of Insurance Commissioners dealing with present Blue Cross Reimbursement Formulae, which supports the present inclusion of professional services in such reimbursement formulae.

11. Requested additional data with respect to a proposal being considered by the Hospital Council which would change the pharmacy law to permit hospital pharmacies to substitute drugs prescribed by physicians.

12. Agreed to request information from the Board of Medical Examiners as to whether the giving of intravenous medication by nurses is a violation of the Medical Practice Act.

Council

1. Approved Emeritus Membership for E. Hollister Davis, M.D., and Claud Smink, M.D., both of Baltimore City.

2. Granted legal defense for three members who requested it, in accordance with the Bylaws.

3. Regretted its inability to grant similar defense to one member because of failure to fall within the provisions of the Bylaws.

4. Retained Mr. G. C. A. Anderson as legal counsel for the Faculty for another year.

5. Reappointed the following for two year terms on the State Health Department's Council on Medical Care: E. I. Baumgartner, M.D., Oakland, and J. Roy Guyther, M.D., Mechanicsville.

6. Accepted with appreciation a gift of $3,000, plus $100 for establishment of the J. Mason Hundley, Jr., M.D., annual lecture in gynecology.

7. Expressed concern over "outside agencies establishing fees without adequate consultation with the appropriate bodies of the medical profession." This is to be communicated to the Baltimore City Health Department, the Baltimore City Medical Society, and the State Department of Health.

8. Agreed to actively support the State Health Department's budget request for funds to increase by $1.00 each the home and office visit fees under the Medical Care Program. This is the first increase since the program went into effect in the early 1940's.

9. Authorized the Faculty's Liaison Committee to develop an addition to the Pupil Medical Record Form to protect the physician legally in revealing data to individuals other than the family of children.

10. Approved Executive Committee action in requesting the Blue Cross and Blue Shield Boards to consider again the question of:

(a) Extension of medical benefits in hospital outpatient departments under Blue Cross

(b) Transfer of professional services from the Blue Cross contract to the Blue Shield contract.

11. Authorized a poll of the Faculty's Blue Cross membership group as to its preference for the $50 deductible policy or the standard Blue Cross policy.

12. Approved use of the Faculty Building:

(a) By the Committee on Medical Care, Maryland State Planning Commission

(b) By a group of researchers, subject to payment of janitorial fees and services

Both groups are to understand that Faculty activity takes precedence.

13. Requested the Fee Schedule Committee to consider the advisability of a relative value study and to report back to the Council.

14. Requested the Public Relations Committee to make its recommendation concerning a membership plaque to the House of Delegates at the April 1962 meeting.

15. Was advised that the question of incorporation of physicians was to be discussed by the Policy and Planning Committee in the near future.

16. Approved certain proposals for discussion with Baltimore City Dental Society in connection with their membership privileges in the Faculty. A report is to be made to the Council before any agreement is entered into.

House of Delegates

The House of Delegates held its semiannual meeting on September 15, 1961, at the Commander Hotel, in Ocean City, and took the following actions:

1. Granted emeritus membership to E. Hollister Davis, M.D., and Claud Smink, M.D.

2. Adopted various amendments to the Bylaws.

3. Accepted without discussion the report of the Faculty's delegates to the AMA.

4. Heard the report of the Reference Committee and voted upon the resolutions presented as follows:

RESOLUTION 1-S, concerning term of office and rotation of membership in the House of Delegates, is to be referred to the Bylaws Committee.

RESOLUTION 2-S, to promote dispersal of interns to qualified non-affiliated hospitals throughout the state was adopted. This resolution is also to be referred to the Liaison Committee, which is to report back to the House of Delegates on its recommendations and action.

RESOLUTION 3-S, in support of freedom of choice of physician in Workmen's Compensation cases, was approved. A report is to be submitted to the House of Delegates at the Annual Meeting in 1962 concerning the action of the Department of Labor and Industry in response to this resolution.

RESOLUTION 5-S, in re policy support for AMA activities and actions, was approved.

RESOLUTION 6-S, rejecting legislation to provide medical care under social security, was approved.

RESOLUTION 7-S, to exempt from net income, for tax purposes, all premiums for prepaid medical care, was approved.

RESOLUTION 8-S, endorsing legislation to allow tax exemption for drugs and medicines for persons 65 and older, was approved.

5. Heard an address by the Rev. Robert P. Varley, of Salisbury, a member of the AMA Speakers Bureau, on The Future of Medicine in Maryland.

6. Voted to advise Maryland's Senators and Representatives of the passage of Resolutions 5-S, 6-S, 7-S, and 8-S.

7. Referred Sections 7 and 8 of Article X of the Bylaws back to the Bylaws Committee for clarification.

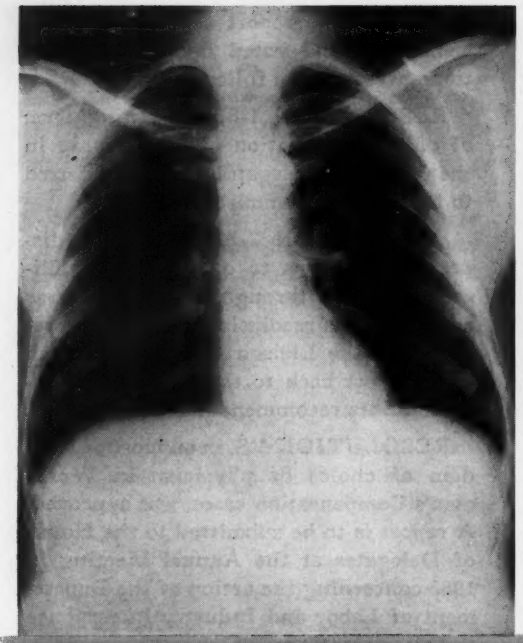

Figure 1
Patient FS six days after exposure to contaminated dust. There is an early right bronchopneumonia with some hilar enlargement.

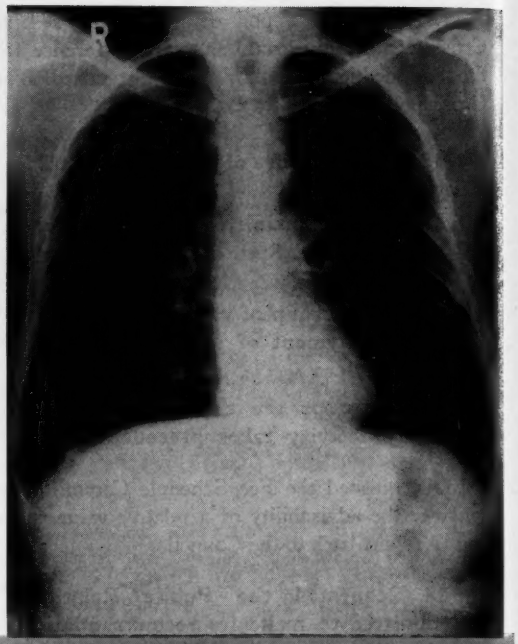

Figure 2
Chest x-ray of FS at Mercy Hospital. The superior mediastinum appears widened. Innumerable metastatic tumor-like deposits are faintly seen scattered throughout both lung fields.

An Outbreak of Histoplasmosis in Baltimore County

THE PROBLEM OF SANITIZING INFECTED SOIL

Four cases of pulmonary histoplasmosis acquired while tearing down an old chicken coop are presented. This is only the second time that histoplasmosis has been reported in Baltimore County. Although histoplasma bodies were not isolated from any of the patients, the patients presented certain diagnostic features that seem to be compatible with a diagnosis of histoplasmosis. The etiologic studies also seem to point to this offender, the Histoplasma capsulatum.

The problem of sanitizing infected soil is discussed. Several sanitizing procedures with their limitations are presented. Sanitization of infected soil is admittedly a difficult one and influenced by many factors. Some form of chemical decontamination will probably be the answer.

ACKNOWLEDGEMENTS: The author is indebted to Robert J. Lyden, M.D., for permission to use the cases of FS, ES, and MS, and to Leon E. Kassel, M.D., for permission to use the case of JD. The author also wishes to thank William H. F. Warthen, M.D., Deputy State and County Health Officer of the Baltimore County Department of Health, for his suggestions during the course of the outbreak and for his editorial comments.

THE PRESENCE OF *Histoplasma capsulatum* in certain soils is well authenticated, and the relationship of such infected soils to the onset of histoplasmosis has been documented repeatedly. In reviewing the literature on histoplasmosis, however, I find a certain lack of enthusiasm in regard to ridding the soil of the offending organisms.

Samuel P. Scalia, M.D.

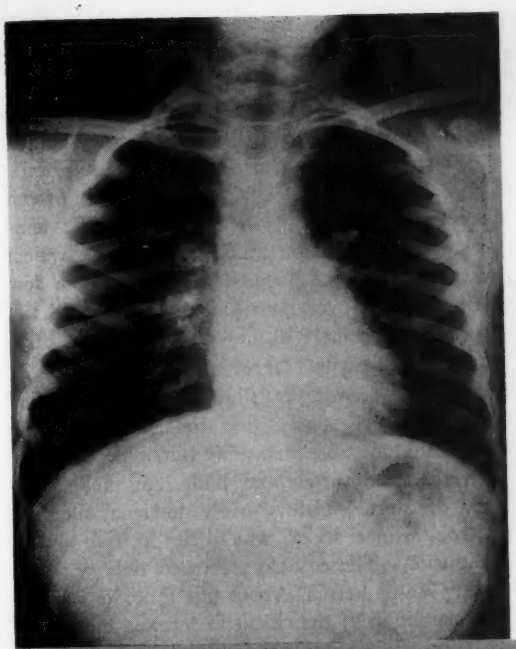

Figure 3

Patient MS. The right hilum appears greatly enlarged due to the massive adenopathy in this region.

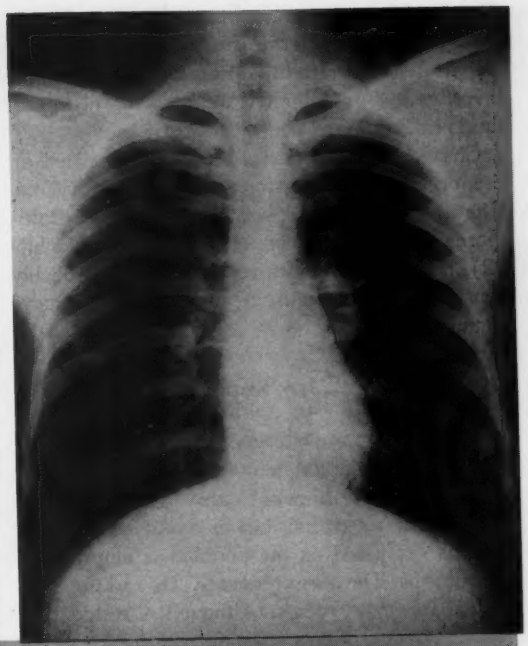

Figure 4

Patient ES. Bilateral hilar enlargement can easily be seen. Below the right first rib, a minimal parenchymal lesion may be discerned (arrow).

Figure 5

Patient JD. The bronchovascular markings are mildly accentuated throughout both lung fields, and the hilar shadows are prominent, especially on the right. A small infiltrate (arrow) can be seen below the right first rib. There is a suggestion of fine granular densities throughout both lung fields.

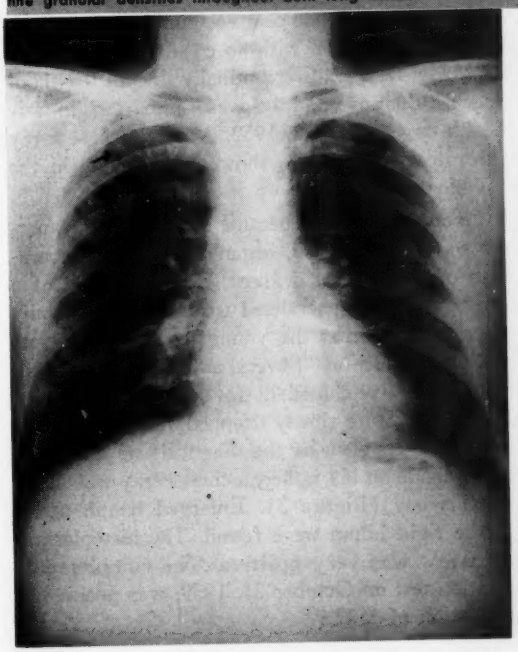

Figure 6

Chest x-ray of the dog reveals no unusual findings.

The problem of sanitizing infected soil was brought to the attention of the Baltimore County Department of Health during the epidemiologic investigation of a limited outbreak of histoplasmosis in Baltimore County.

Chase and Reynolds (1) recently reported on the occurrence of histoplasmosis in Maryland. The first case of histoplasmosis acquired in Baltimore County was reported by Wright and Hachtel (2), and the four cases reported herein probably constitute the second report from Baltimore County.

Case Reports

A 45-YEAR-OLD white male (JD) rented an old farm in the Reisterstown area, in the northwest section of Baltimore County. This has always been a farming region, but in recent years farming has decreased as the population migrated to the suburbs. The farm rented by JD had not been in use for many years. Although a resident of Reisterstown, JD was not a farmer by trade, but worked for one of the larger steel mills in Baltimore County. While idle during the 1959 steel strike, he decided to improve his rented farm. A brother-in-law (FS) and his two sons (MS and ES) volunteered to help. The brother-in-law and his family were residents of Baltimore City.

Among the improvements contemplated was the demolition of an old chicken coop, which was constructed mainly of old logs and chicken wire. On September 13, 1959, a dry, hot day, the four individuals tied heavy ropes around the coop and pulled it down with a tractor. During these proceedings, much dust was stirred up. Some of the logs were salvaged, but the remainder were burned; thus more dust was created.

Five days later, the brother-in-law (FS), age 47, had a "grippe-like" infection. He complained of generalized muscular aches and pains and pleuritic pain which was aggravated by a dry cough. His temperature was 103 to 104 degrees. There was a past history of a pneumonia, so he had an immediate chest x-ray (Figure 1). This film was interpreted as showing "a right bronchopneumonia with some hilar enlargement." He failed to mention the demolition of the chicken coop to his physician. Various antibiotics were tried with some improvement. He returned to work in late September, when the steel strike ended, although his weakness and his fever continued.

He was admitted to the Mercy Hospital in Baltimore City on October 7, 1959, three weeks after the initial onset of his illness. By this time he had a dry cough, dyspnea, hoarseness, and anorexia. There had been a weight loss of ten to fifteen pounds since the onset of his illness. His temperature on admission was 103 degrees. Physical examination at the hospital revealed only a few scattered rales over both lung fields. He did not appear to be acutely ill.

A chest x-ray at Mercy Hospital (Figure 2) was read as showing a "slightly widened superior mediastinum probably due to enlarged lymph nodes. Innumerable metastatic tumor deposits are seen scattered throughout both lung fields." In view of an old history of a duodenal ulcer, a gastrointestinal series was done to rule out a malignancy. These x-rays showed only a small, sliding hiatus hernia. About this time, he recalled the demolition of the chicken coop and mentioned it to his physician. A histoplasmin skin test was performed and was markedly positive. A complement-fixation study for histoplasmosis on October 20, 1959, was positive up to a dilution of 1:16. Based on these new findings a diagnosis of pulmonary histoplasmosis was made.

On admission, the patient had a leukocyte count of 10,700 with 7 per cent eosinophilia. One week later, it was 13,500 with an eosinophilia of 5 per cent. His temperature gradually dropped without specific therapy, and he was discharged in fair health on October 22, 1959. A repeat chest x-ray prior to his discharge showed no change in the radiologic findings.

One week after he became ill, the man's youngest son (MS), age 9, began to show a temperature of 103 to 104 degrees. He complained of a dry cough and generalized weakness. The family physician felt that the youngster had some sort of "virus infection." Several antibiotics were used, but the boy remained ill for about three weeks. The temperature slowly dropped, and he returned to school. In view of the diagnosis of histoplasmosis made on his father, a chest x-ray was taken on this boy (Figure 3). Enlarged lymph nodes at the right hilum were found. The histoplasmin skin test was very positive. The complement-fixation test on October 31, 1959, was positive at a dilution of 1:32.

The oldest son (ES), age 20, became ill on October 1, 1959. He had fever, aches and pains, and a cough. With aspirin, he recovered within a week. A chest x-ray (Figure 4) showed bilateral hilar enlargement with a minimal parenchymal lesion in the right subapical area in the region of the first rib. The histoplasmin skin test was positive and the complement-fixation test was positive to a dilution of 1:32.

JD had been living on the farm since July 1, 1959. He became ill about the same time as his brother-in-law. He had a severe cough which was slightly productive of greenish mucus. He had chills and temperature to 105 degrees, as well as weakness, anorexia, and diarrhea. He consulted a Reisterstown physician, who felt that he had some sort of "virus infection." There was no apparent improvement on various antibiotics. He then consulted a physician in Baltimore City. The fever had disappeared, but he had lost about twelve pounds. The cough persisted but was now nonproductive. A chest x-ray by his physician was considered abnormal, and the patient was admitted to Sinai Hospital on October 13, 1959.

Physical examination at the hospital was completely normal. Leukocytes were 5,100 with 5 per cent eosinophiles. The chest x-ray (Figure 5) revealed "mild accentuated bronchovascular markings throughout both lung fields with prominent hilar shadows, chiefly on the right. A small infiltration is present at the right first interspace, and there is a suggestion of fine, granular densities throughout both lung fields." At this time, the diagnosis of histoplasmosis was made on the brother-in-law (FS) at Mercy Hospital. The histoplasmin skin test was done on JD and it was positive; however, the complement-fixation test was negative. On the fourth day of hospitalization JD was allowed a leave of absence. He returned very intoxicated and was permitted to "sign himself out of the hospital."

A pet dog belonging to FS had been present at the time the chicken coop was torn down. The dog developed severe vomiting several days later, but recovered quickly. A chest x-ray was interpreted as normal (Figure 6). FS refused to have the dog skin tested or to have a complement-fixation study performed.

A repeat complement-fixation test on FS taken on November 1, 1959, was positive at a dilution of 1:256. JD had a repeat complement-fixation study on November 7, 1959, which was positive to a dilution of 1:4.

FS continued to complain of fatigue and low-grade fever. On December 28, 1959, he was admitted to the University Hospital in Baltimore City. By this time, he had lost twenty pounds and appeared to be chronically ill. Physical examination revealed crepitant rales at both bases. These rales cleared with coughing. A bone marrow biopsy showed normal smears, and no fungi could be cultured. Leukocytes were 16,800 with an 8 per cent eosinophilia. The sedimentation rate was elevated to 34 mm (corrected). Sputum cultures were negative for fungi. An x-ray of the abdomen revealed no abnormalities, but a chest x-ray again showed "multiple bilateral pulmonary infiltrates compatible with pulmonary histoplasmosis." FS refused a scalene node biopsy. No specific therapy was given, and he was discharged on the eighth hospital day.

The wife and daughter of FS had the histoplasmin skin test and complement-fixation studies; these tests were negative.

Since their discharge from the hospital, both FS and JD have been followed by their private physicians. As of March, 1961, FS continues to complain of not feeling well and of being tired all the time. The chest x-ray has not changed in an entire year. JD, on the other hand, has not had any complaints. Several complement-fixation tests during the year have shown an increasing titre to a dilution of 1:256. A recent chest x-ray shows early pinpoint calcifications.

Epidemiology

SHORTLY AFTER the Baltimore County Department of Health was consulted on this outbreak, samples of soil were collected from the chicken coop site. *Histoplasma capsulatum* was readily isolated by the laboratories of the Maryland State Department of Health. Various attempts to isolate the organisms from the sputa of the patients were unsuccessful. As mentioned previously, FS refused a scalene node biopsy and refused to have his dog tested in any manner.

A review of the sequence of events in this outbreak shows that the symptoms presented by the patients seem to meet the criteria established for the diagnosis of histoplasmosis. The incubation period for histoplasmosis may vary from five to

twenty-one days. These patients developed their illness during this period of time. In discussing the diagnosis of histoplasmosis, one can think of the various factors that enter into such a diagnosis. Procknow (3) has summarized these factors concisely in Table I.

TABLE I—DIAGNOSTIC FACTORS IN HISTOPLASMOSIS

A. History and physical examination
B. Roentgenographic signs
C. Skin testing
D. Serial serological testing
E. Isolating the organism
   1. From the environment
      a. Culture
      b. Mouse passage
   2. From the patient
      a. Body fluids
      b. Biopsy
      c. Autopsy

Each of these factors was present to some degree in each of the patients. One may argue the point that cross-reactions do exist between histoplasmosis, coccidioidomycosis, and blastomycosis; but it is unlikely that cross-reactions would result in complement-fixation titres up to a dilution of 1:256, as was found in two of the four cases presented. Furthermore, coccidioidomycosis is not found in this region of the United States, and blastomycosis is uncommon in Maryland.

The isolation of the organism from the environment was easily accomplished in this outbreak, but the organism could not be isolated from any of the patients. The proof of the nature of the causative agent in this outbreak is, therefore, less direct. Furcolow and Grayston (4) performed etiologic studies on one hundred and sixteen patients involved in a series of epidemics of histoplasmosis; in only one case was the fungus isolated. Their philosophy has been that the occurrence of a group of cases with similar clinical findings and similar reactions to etiologic studies must point to a common etiologic agent; namely *Histoplasma capsulatum.*

Sanitizing the Infected Soil

Dr. Chester W. Emmons, chief of the Medical Mycology Section of the Laboratory of Infectious Diseases at the National Institute of Health, was approached with the problem of treating infected soil for the presence of *Histoplasma capsulatum.* He suggested the term "sanitizing infected soil" (5). Dr. Emmons recommended burning all superficial debris covering the infected area, although he realized that this has its limitations, because the organisms can be found as deep as four to six inches below the surface of the soil.

The United States Air Force faced a similar problem in sanitizing soil infected with *Coccidioides immitis* in the southwestern United States. They apparently solved the problem by saturating the soil with kerosene and oil. This apparently destroys the offending organisms, but, as Emmons (5) pointed out, it also destroys the "integrity of the soil" for farming or gardening. If the land in question is to be used for building purposes, this, of course, raises no problem.

Lehan and Furcolow (6) have recommended wetting down the infected area. This is but a temporary measure to keep dust from being stirred up, however, and does nothing to the organism.

Dr. Michael L. Furcolow, chief of the Kansas City Field Station of the Communicable Disease Center, was also apprised of the problem in Baltimore County. Dr. Furcolow (7) had had some experience with Captan, a commercially available fungicide. His comments on its use were discouraging.

He referred this investigator to the epidemic of histoplasmosis in Walworth, Wisconsin (8), in which nineteen people developed histoplasmosis after varying degrees of exposure to an infected property lot. Fresh top soil was spread over the area. Whether this is only a temporarily effective measure is undecided at the time of this writing.

Several other methods for sanitizing the soil in this outbreak were offered by members of the Section of Environmental Health of the Baltimore County Department of Health. One suggestion was that a bulldozer be allowed to turn up the entire infected area after the area was completely wetted down or after a heavy rain storm. Again, this method does nothing to actually destroy the *Histoplasma capsulatum;* a bulldozer would do nothing more than just stir up the organisms.

Since fire seems to be the only positive method of destroying the organisms in the soil, another suggestion was to treat the soil by applying a military type of flame-thrower. This is probably too impractical to consider.

The final recommendation made by the Baltimore County Department of Health to the owners of the property in question was a summation of some of these previous methods for destroying the organisms. The limits of the infected area can be delineated by studying soil samples collected at varying distances in varying directions from the offending region. Dr. Emmons (5) has shown that the infected area may extend for six to eight feet from the central focus of infection. All superficial debris in the area should be burned. Then, the top four to six inches of soil should be removed and buried at some distant point in a hole several feet deep. The burial site and the infected area should then be covered with fresh top soil.

It can be appreciated from this discussion that the sanitization of soil infected with *Histoplasma capsulatum* is a most difficult problem. All of the methods suggested have their limitations in that they are laborious, expensive, time-consuming, and, at times, ineffective. The histoplasma bodies apparently lie dormant in the soil, remaining to be activated to pathogenicity by the proper animal excreta. There is no control over the animal instigator, but it would appear that the infected soil could be treated chemically so as to change the environment and thus prevent the propagation of histoplasmosis. *Histoplasma capsulatum* has the biological advantage of being a free-living saprophytic organism that can resist heat, cold, and drying for many years (9). Other factors involved in the spread of these organisms are prevailing winds and their location in river basins and valleys (10). Chemical decontamination of the natural reservoir, the soil, may be the only answer.

Division of Tuberculosis Control
Baltimore County Department of Health
Towson 4, Maryland

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Are You Sure You're Practicing

According to the Board of Medical Examiners of Maryland, a number of physicians are not, having failed to comply with the re-registration law which became effective June 1, 1960. This law requires all physicians practicing medicine and surgery in the state to re-register their Maryland Medical License. It is imperative that physicians who have not yet done so apply immediately for registration.

LEGALLY

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Panel Discussion

T. S. Danowski, M.D.,[1] Moderator

John H. Moyer, M.D.[2]

John C. Stauffer, M.D.[3]

Management of CONGESTIVE HEART FAILURE

DR. DANOWSKI: Congestive heart failure is a complication we all see at one time or another, irrespective of our specialty. It is therefore desirable to review our knowledge and lack of knowledge of this clinical problem.

In physiologic terms, congestive heart failure represents an inadequacy of cardiac function compared to tissue needs. This disparity is manifest most clearly in the supply of oxygen to the tissues.

Though in detailed studies the cardiac output has been used as an index, measurement of the oxygen in the blood that returns to the heart—that is, the mean venous oxygen content of blood in the right ventricle, is a more reliable criterion. This greater reliability arises from the fact that in congestive heart failure the tissues extract more than the usual proportion of oxygen from the arterial blood, and therefore the oxygen content of venous blood returning to the heart is lower than normal.

Dr. Moyer, would you discuss the electrolyte and water aspects of congestive heart failure?

DR. MOYER: The biochemical disturbances are usually a reflection of the degree of cardiovascular failure rather than a reflection of the therapy. In brief, the renal glomerular and tubular function is such that an absolute retention of sodium and chloride occurs with a secondary retention of water, leading to the phenomenon of congestive heart failure with its clinical manifestations.

From the therapeutic point of view, it must be remembered that we rarely cure congestive heart failure; we only treat it symptomatically. All of our therapeutic approaches are relative in that we are by various means attempting to return the electrolyte abnormalities of congestive failure to normal, but we never really attain this completely.

Presented at the Annual Meeting of the Medical and Chirurgical Faculty on April 27, 1961.

[1] Professor of Research Medicine, University of Pittsburgh School of Medicine.

[2] Professor of Medicine and Chairman of Department of Internal Medicine, Hahnemann Medical College.

[3] Research Assistant Professor in Department of Surgery (Cardiopulmonary), Instructor in Endocrinology, University of Maryland School of Medicine.

***ABNORMAL CONSERVATION OF SODIUM** by the kidney in congestive heart failure appears to be the result of a disturbance in the volume-regulation mechanisms of the body. Multiple receptors and effector paths may be involved.*

***THE USE OF POTENT DIURETICS** has greatly simplified the delivery of edema in congestive heart failure. A wide variety of these agents is currently available. While they are especially effective in the treatment of congestive heart failure and diastolic hypertension, their use is equally advantageous in other conditions associated with abnormal retention of salt and water.*

Our therapeutic armamentarium, therefore, generally consists of diets, digitalis, diuretics, and other drugs which operate within this relative phenomenon.

DR. DANOWSKI: You are all aware of the emphasis in the past on backward failure versus forward failure. In other words, venous distention has been cited as evidence of backward failure. However, you recall the work of Starr indicating that in models of the human cardiovascular system there is no way in which an accumulation of blood on the venous side can be produced by a failing pump or a failing heart. Consequently, the edema that occurs on the venous side and in the tissues as a whole is a reflection of the retention of sodium which Dr. Moyer has described.

This results from forward failure. Thus, in congestive heart failure the decrease in cardiac output is accompanied by a proportionately greater decrease in blood flow to the kidney. This is usually but not always accompanied by a fall in glomerular filtration. The latter is the basis for the so-called "Forward Failure" theory, since less than the usual quantities of sodium and chloride are made available for excretion. In addition, there is an increased tendency for reabsorption of filtered sodium and chloride; i.e., a tubular-glomerular imbalance exists with increased reabsorption of these electrolytes in the face of a normal or reduced filtration rate. The net effect is the net retention of sodium, chloride, and water and the development of edema as described by Dr. Moyer. This edema expands the plasma volume on the arterial as well as the venous side of the circulation.

DR. MOYER: May I add something at this point? I have always been interested in the fact that one of the common complications of hypertension is, of course, heart failure, occurring sooner or later in about 30 per cent of the patients. One of the most effective therapeutic approaches to the patient with hypertension and congestive failure is the use of ganglionic blocking agents. Hence, death from effectively treated patients is relatively uncommon with hypertension these days. Yet, no-

toriously, the ganglionic blocking agents further reduce the cardiac output as much as 30 to 40 per cent. This completely disturbs me, because here you have a situation in which supposedly the mechanism of the development of heart failure is a reduced cardiac output; yet when we use a drug which further reduces cardiac output, the congestive failure improves.

DR. DANOWSKI: It must be, of course, that the effect of the ganglionic blocking agent upon the peripheral circulation and on the afferent and efferent renal arterioles more than compensates for the reduction in cardiac output.

I also want to point out that the whole question of blood volume in congestive heart failure is still up in the air. We still lack a valid method for measuring blood volume. Also, even though the veins are distended in congestive heart failure, this does not establish that the plasma and blood volumes are expanded. Therefore, the possibility exists that blood shunted from the arterial to the venous side could account for the venous distension without a change in the total blood volume. Alternatively, it is conceivable that the vascular bed can become constricted and thereby cause the veins to stand out. Again, in this circumstance, total blood volume need not have changed.

In view of the limitations of our methods for total blood volume determinations and of our inability to measure the volume of the arterial and venous segments of the circulation, it is not yet possible to state that the blood volume is regularly increased in congestive heart failure.

DR. MOYER: Would you concede the point, Dr. Danowski, or elaborate upon it, that in a patient such as the one to whom I just referred; i.e., one who has been treated with blocking agents with successful resolution of heart failure, that the origin of the heart failure lay in a failing pump. Also, that at the time we first see such a patient clinically there are widespread disturbances in which many general changes have occurred, including loss of cellular membrane integrity. This further emphasizes the point that when we treat such a patient, we are merely treating symptomatically and trying to reverse these changes in part. The dynamics that we're dealing with at that point may be entirely different and much more generalized than the actual origin of the failing mechanism.

DR. DANOWSKI: I think this is very true. I think, for example, that one must look upon a congestive heart failure patient as someone who has set up new equilibria, someone in whom a new homeostasis has developed. Also, principles that apply in a healthy individual may not apply in a patient with congestive heart failure.

I would now like to ask Dr. Stauffer to tell us about congestive heart failure with and without edema as it is encountered clinically.

DR. STAUFFER: In the term congestive heart failure, I prefer to think of it as being a disease at the time we make the diagnosis clinically, as involving two organs: the heart and the kidneys. The heart produces the primary defect with a decrease in the cardiac output, but the kidney, in responding to the situation at hand, exhibits a mechanism which sometimes appears to do more harm than it does good.

This brings to mind a poem of Dr. Strauss', which I think might help to explain how the kidney, if it is confused in the situation, might find itself in sort of a dilemma. This poem, written about ten years ago, is entitled "Salt and Water."

In the beginning the abundance of the sea led
to prolifigacy,
The ascent through the brackish water
Of the estuary to the salt-poor lakes and ponds
Made immense demands upon the glands.
Salt must be saved; water is free.

In the never-ending struggle for security
Man's chief enemy, according to the bard
of Stratford-on-the-Avon,
The banks were climbed and life established
on dry land
Making the incredible demand upon another
gland
That water, too, be saved.

Now, here we have a physiologic response of the kidney to a disturbed function of the heart. This response is pathologic as far as sodium retention and the production of edema are concerned.

An interesting analogy can be made between the response of the kidney in this situation and a normal physiologic response of the kidney to

exercise. The kidney responds to heart failure in the same manner as it does to exercise. For example, in both congestive heart failure, in which the cardiac output is decreased, and on exercise when the cardiac output is increased, one finds an increase in pulse and respiration and AV oxygen difference in the peripheral blood. The urine volume decreases; concentration of sodium decreases in the urine, apparently from a decrease in renal blood flow. Proteinuria appears in either extreme. There is increased response of the kidney to the acidity of the blood, and in both cases, a general increase in lactic acid occurs. There are numerous other parallel manifestations of the response of the kidney to congestive failure and to exercise.

In both the pathologic condition of congestive failure and the physiologic condition of exercise, the defect is reversible. In exercise the changes reverse themselves during the normal recovery phase, whereas in failure, reversal is accomplished by correcting the underlying cardiac disease. In other words, it appears to me that the kidneys in a patient with congestive failure behave as if he is performing mild to moderate exercise continuously.

Now, getting down to the problem at hand, that of congestive heart failure and the clinical manifestations of it, I believe everyone is pretty well familiar with the common symptoms: the dyspnea on exertion, the decreased exercise tolerance, orthopnea, peripheral edema, and so forth. Sometimes, if it comes on rapidly, a patient will actually report a rapid weight gain with a small amount of urinary output during one or two particular days.

This particular picture is a combination of renal and cardiac defect. With pure heart failure or acute heart failure, before there is much opportunity for the kidney to lead to sodium retention, there is simply a decrease in cardiac output with dizziness or other symptoms, peripheral vasoconstriction, as is seen when there is a paroxysmal tachycardia or an acute myocarditis, and the patient generally exhibits weakness, dizziness and perhaps shock.

A more acute form of congestive failure with possible kidney dysfunction shows up in the case of acute pulmonary edema. The physical findings again are all quite familiar. I believe that Dr. Danowski and Dr. Moyer have been bringing these points out very well, and I will turn it back to Dr. Danowski to continue at this point.

DR. DANOWSKI: Dr. Moyer mentioned that in many cases we can't do anything about the efficiency of the heart in terms of restoring it to its pristine normal state. This isn't always true. With each patient we must keep in mind the possibility that a reversible form of heart disease may be present.

For example, this is particularly true of certain forms of high output congestive heart failure. Thus, patients who have beri-beri, resulting of course from a deficiency of thiamine, may have a high output form of cardiac failure. If one corrects the beri-beri, not only will the congestive heart failure be corrected but the underlying heart disease will also be resolved. This is also true, for example, of patients who have congestive heart failure secondary to arteriovenous shunts. If one can remove the shunt, the heart failure will disappear and the heart will usually return to its previous compensated state.

Other potentially reversible forms of heart disease include so-called thyrotoxic heart disease, myxedema heart disease, constrictive pericarditis, some instances of congenital heart disease, and those instances of acute rheumatic carditis responsive to ACTH or to hydrocortisone and related steroids in appropriately massive dosages. Hence, every patient that we see should be looked at from the viewpoint of possible reversible heart disease of one type or another.

DR. MOYER: How do you cure the Paget's disease?

DR. DANOWSKI: I think this is a realistic question. The only therapy for Paget's disease available at present is only partially effective and not practical for long periods. It consists of the administration of pharmacologic dosages of adrenocortical steroids of the hydrocortisone type. These decrease the intensity of Paget's disease. I do not know whether this would reduce the size of the communicating vascular channels, but it might keep the disease from progressing. Of course, if it were limited to an extremity, Dr. Moyer, I suppose one could consider amputation.

Let us now return to the problem of irreversible heart disease. Obviously such patients themselves automatically tend to restrict physical ac-

tivity, because they become uncomfortable during such exertion. When they come into your hands or mine, we may further curtail such activity. For example, if we can keep them from walking upstairs, perhaps their inadequate cardiac output may then be adequate to meet the needs of the tissues. It is more precise to say, however, that we try to reduce their tissue needs so that they will be within the compass of their cardiac output.

Insofar as the sodium retention is concerned, we prescribe diets which reduce the intake of sodium. We also turn to drugs such as the digitalis group which improve or restore cardiac efficiency. It is interesting that in this year, 1961, we still cannot identify precisely the actual mechanism whereby digitalis benefits patients with congestive heart failure. It may be that it decreases venous tone. It may have a directly beneficial effect upon the myocardium. In the case of those patients who have rhythm disturbances, the improved efficiency can be related to a longer myocardial rest period. These are the traditional measures. Now we come to the question of diuretics.

Water has been suggested as a diuretic. Some of you will remember Dr. Schemm's advocacy of the infusion of large amounts of 5 per cent glucose into patients with congestive heart failure. Many of his patients responded to such therapy. Is it not a paradox that a patient who already has too much water receives more water and gets better? Probably in some patients Dr. Schemm was increasing the urinary output of sodium by this means. Whether this simply raised the flow of filtrate through the renal tubules so that some sodium was lost because there was not time for reabsorption, or whether it set in motion a volume regulating center which then cut back on aldosterone production and allowed diuresis to occur is not known. Administration of water in large volumes without sodium and chloride is, however, potentially dangerous. If the patient does not diurese, then water intoxication, convulsions, and even pulmonary edema may ensue.

The administration of urea to patients with congestive heart failure is a time-honored custom which should not be forgotten. Urea is a safe and inexpensive diuretic which proves effective in those patients whose NPN is not elevated above 80 milligrams per cent.

Older diuretics such as the acidifying type and the xanthines will be discussed by Dr. Moyer, along with the expanding armamentarium of newer drugs of various potencies which have somewhat different mechanisms of action which allow for their use in additive fashion. At this point we'll ask Dr. Moyer to review the current status of diuretics.

Dr. Moyer: Diuretic agents are useful adjunctive measures in the treatment of hypertension and edema due to cardiac failure. The appropriate selection of the most effective preparation in each clinical situation depends upon an intimate understanding of pathophysiologic mechanisms and a complete pharmacologic knowledge of the diuretic armamentarium. I will review the pharmacology of the presently available diuretic agents and discuss their application in congestive heart failure and hypertension.

CLINICAL PHARMACOLOGY

Mercurial Diuretics. Organomercurials have played a major role in the therapy of edema for more than forty years. Despite the introduction of numerous newer agents, the parenteral mercurial compounds must still be rated among the most potent of the available diuretic preparations. Few compounds have been used as successfully and over such a long period with so little toxicity as the organomercurials.

During mercurial diuresis, the glomerular filtration rate may rise, fall, or show no significant change. Changes in renal plasma flow show a similar inconsistency. Most evidence favors the proximal tubule as the major diuretic site of action; however, some effect is exerted at the distal tubule and probably on the conducting ducts as well (1). Although their exact mode of action has not been agreed upon, it appears most likely that these compounds depress specific enzymatic activities necessary for the tubular transport of electrolytes. Histochemical studies indicate that the mercurial diuretics act by inhibiting sulfhydryl-containing enzymes. Most experimental evidence is compatible with primary blockade of sodium reabsorption in the proximal tubule. In the distal tubule, some sodium is exchanged for potassium, thereby leading to a small increase in kaliuresis as well. However, the overall effect on potassium excretion is variable, and unless there

is a massive diuresis, potassium excretion is not significantly enhanced.

Studies conducted with meralluride (Mercuhydrin®) reveal that the rate of absorption following subcutaneous, intramuscular, or intravenous administration is approximately the same in patients with minimal edema (2). This indicates that the rate of absorption from both subcutaneous and intramuscular sites is rapid. In patients with severe edema, however, there is usually a delayed absorption from the site of injection, and the diuretic response is impaired (2). Generally the increase in sodium excretion parallels the renal excretion of the drug, and maximum natriuresis usually occurs within six hours after injection.

Oral mercurials are poorly absorbed from the gastrointestinal tract. Consequently extremely high dosages are required to obtain significant natriuresis. At these high dose levels, gastrointestinal disturbances are prominent limiting factors. Of the available oral preparations, chlormerodrin (Neohydrin®) is the most useful since it is better absorbed from the intestinal tract (up to 15 per cent) and is more potent than the other mercurial compounds. During recent years, however, the oral mercurial compounds have largely been replaced by the thiazide derivatives, which possess greater therapeutic potency and a lesser incidence of accompanying side reactions.

Although rare, intolerance to mercurials may occur. There is little cross-sensitivity to different mercurials, however, and patients sensitive to one preparation may often receive others without reaction. Although mercurials are frequently withheld from patients with renal disease, Griffith suggests that neither small nor massive dosages of mercurials are harmful to the kidney except in the presence of oliguria or hyponatremia (3).

Xanthine and Isocytosine Diuretics. Xanthines, such as aminophylline and various salts of theobromine, are derivatives of purine, which is found in nucleic acid. Aminometradine (Mictine) and aminoisometradine (Rolicton) are derivatives of the pyrimidine base cytosine, which also is found in nucleic acid. The diuresis induced by the xanthine and isocytosine diuretics is due, in part, to a direct renal tubular effect. In addition, the xanthines exert a stimulant effect on the myocardium, resulting ultimately in increased cardiac output; the latter response, in turn, increases the glomerular filtration rate and renal blood flow. The isocytosines also produce an occasional moderate increase in renal plasma flow, but glomerular filtration rate is not significantly altered.

Aminophylline is the most useful xanthine diuretic currently available. It is used primarily to potentiate the diuretic effectiveness of the organomercurials. As a result of the increased renal plasma flow and glomerular filtration rate which ensues, a greater quantity of sodium and chloride is presented to the tubule for subsequent blockage by the mercurials. For this purpose, aminophylline is generally given intravenously one hour after the mercurial injection. The maximal effect of intravenous aminophylline occurs within two hours. The clinical use of the isocytosine drugs is restricted to mild or moderate edema states because of their limited potency and disturbing side effects.

Carbonic Anhydrase Inhibitors. In 1932, Meldrum and Roughton (4) demonstrated the existence of an enzyme in the erythrocytes which promotes the hydration of CO_2 to H_2CO_3. Subsequently carbonic anhydrase was found in the renal cortex as well as in the brain, pancreas, gastric mucosa, and salivary and sweat glands. In the cells of the renal tubule, the CO_2 produced metabolically is rapidly converted to carbonic acid. The ionic dissociation of H_2CO_3 produces hydrogen ions which are excreted into the tubule in exchange for sodium.

Following reports that metabolic acidosis and rise in urinary pH resulted from the administration of sulfanilamide, Mann and Keilin (5) found that this drug was a potent carbonic anhydrase inhibitor. It was subsequently demonstrated that large doses of sulfanilamide exerted a favorable diuretic response in edematous patients. In the search for more potent carbonic anhydrase inhibitors, compounds were prepared with several hundred times the diuretic activity of sulfanilamide. Among these, acetazolamide (Diamox®) and ethoxzolamide (Cardrase®) have been the most useful.

There are three phases in the normal hydrogen-sodium exchange mechanism:

1. In the proximal tubule, hydrogen ions exchange with sodium bicarbonate ($NaHCO_3$) to form carbonic acid (H_2CO_3). As a result, sodium ions are reabsorbed.
2. Also in the proximal tubule, hydrogen ions

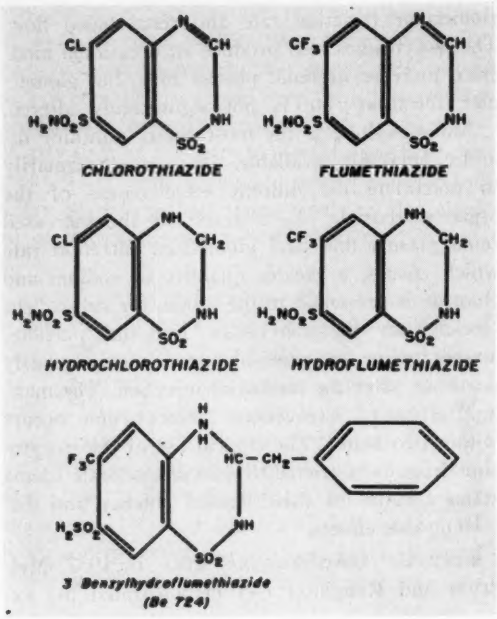

Figure 1
Structural formulas of various thiazide derivatives.

exchange with di-sodium monohydrogen phosphate (Na_2HPO_4). As a result of this exchange, Na_2HPO_4 is converted to monosodium di-hydrogen phosphate (NaH_2PO_4), and sodium ions are reabsorbed.

3. In the distal tubule, ammonia (NH_3) combines with hydrogen to form ammonium ions (NH_4+) which, in turn, also act to conserve sodium.

The administration of carbonic anhydrase inhibitors decreases the amount of carbonic acid formation in the renal tubular cells, and the rate of hydrogen-sodium exchange is thereby diminished. The consequences include decreased sodium and bicarbonate reabsorption, increased potassium excretion, decreased ammonia excretion, and an increase in urinary pH. As a result of the increased solute excretion, urine flow is enhanced. Unfortunately, with continued administration of acetazolamide or ethoxzolamide, the secretion of $Na+$ and HCO_3^- becomes self-limited due to the development of metabolic acidosis. Effective administration requires an intermittent dosage schedule.

The oral carbonic anhydrase inhibitors are most effective in the management of mild to moderate edema. The clinical use of these compounds is limited by: (1) the development of diuretic refractoriness with continued daily administration, and (2) the occurrence of metabolic acidosis. Currently, the thiazide derivatives and phthalimidines, both of which have greater diuretic potency, have largely replaced this group of diuretic agents.

Thiazide Derivatives. In the search for safer and more effective diuretics, Novello and Sprague (6), in 1957, developed a compound that combined a thiadiazine ring with a benzene ring and possessed a sulphamyl substitution in position 7 and a chlorine substitution in position 6 (see Figure 1). Beyer (7) found that this compound, chlorothiazide, was capable of blocking sodium chloride reabsorption by the renal tubule. In addition, it was found that chlorothiazide was an effective inhibitor of carbonic anhydrase *in vitro,* although this does not appear to be the primary mechanism responsible for diuresis *in vivo.*

While the precise diuretic action of the thiazide derivatives has not yet been completely defined, it appears most likely that chlorothiazide and related compounds act by impairing the sodium pump in the renal tubular cells, thereby preventing the reabsorption of large quantities of sodium. Studies conducted with the stop-flow technique have demonstrated that their major site of action is at the proximal tubule (8). Although the effect on sodium and chloride reabsorption is similar to that of the mercurials, it has been found that there are some specific differences; e.g. the organomercurials characteristically increase the rate of free water clearance, whereas the thiazide derivatives do not possess this action (9). In addition, the diuretic effects of chlorothiazide and the mercurial diuretics are additive (10). It has been postulated, therefore, that these two groups of substances block different mechanisms or else interfere with different enzymatic reactions supplying energy to a common mechanism for sodium transport.

With effective diuretic doses of thiazide derivatives, the increased rate of sodium excretion is nearly balanced by increased chloride loss (see Figure 2). In contrast, potassium and bicarbonate excretion is much less intense. Although the thiazides may be given intravenously as well as orally, the oral route produces a more prolonged natriuretic response, since the intravenous drug is more rapidly excreted.

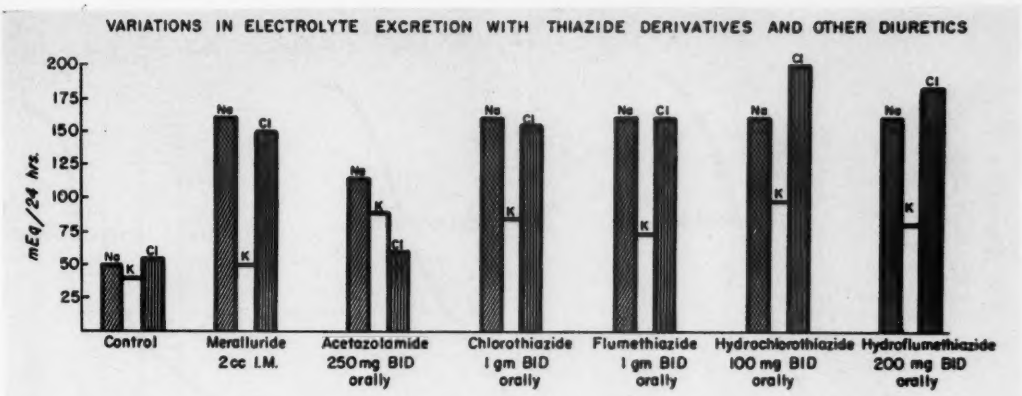

Figure 2

Electrolyte excretion patterns observed with various thiazide derivatives, meralluride, and acetazolamide.

Following the introduction of chlorothiazide, a variety of other benzothiadiazine derivatives were studied for diuretic activity. Numerous compounds possessed potent diuretic actions; however, it was found that certain pharmacologic differences resulted from minor changes in the basic benzothiadiazine structure. From the standpoint of structure, these diuretics may be divided into three groups: non-hydrogenated, hydrogenated, and 3-hydrogenated compounds.

Chlorothiazide (Diuril®) and flumethiazide (Ademol®) are the *non-hydrogenated* thiazides currently in clinical use. Both drugs have the same basic pharmacology and similar clinical effectiveness. Their overall effective dose range is from 200 to 2000 milligrams (see Figure 3).

The *hydrogenated* compounds result from the addition of hydrogen ions at positions three and four on the basic thiazide structure. Hydrochlorothiazide (Esidrix,® Hydrodiuril,® Oretic®) results from the hydrogenation of chlorothiazide; and hydroflumethiazide (Saluron®), from the hydrogenation of flumethiazide. The effective dose range of this group is from 25 to 200 milligrams. Thus the comparative effective dosage ratio between the nonhydrogenated and hydrogenated thiazides is 10:1. Hydrogenation also produces a change in the total electrolyte excretion pattern; e.g. chloride excretion is frequently greater than sodium excretion with the hydrogenated group (see Figure 2).

Addition of a benzyl group at the third position of hydroflumethiazide results in 3-benzylhydroflumethiazide (Naturetin®), and the addition of a dichloromethyl group at the third position of hydrochlorothiazide results in trichlormethiazide (Naqua®, Metahydrin®). These compounds are included in the third category of thiazide derivatives, the *3-hydrogenated* group. The effective dosage range for these compounds is between 1 and 10 milligrams. Although the milligram-potency is greater with the newer thiazide derivatives, it is worthy of emphasis that the natriuretic effect of all the various thiazide derivatives is essentially similar when maximum effective dosages of each are administered (see Figure 3). These newer agents, however, do produce a somewhat lesser potassium excretion.

All of the various thiazide derivatives have proven to be effective diuretic agents. Their clinical value is due especially to their marked and predictable potency and to their oral effectiveness. In addition, the overall incidence of associated side reactions is low. In contrast with the carbonic anhydrase inhibitors, they produce continued natriuresis despite prolonged administration.

Rare cases of jaundice, pancreatitis, thrombocytopenia, agranulocytosis, and skin rashes have been reported following thiazide administration. Patients with renal disease may also develop increased blood urea nitrogen levels and occasional depression of glomerular filtration. Although the mechanism for the development of azotemia is not completely understood, it is probably related (at least in part) to an accompanying reduction in plasma volume.

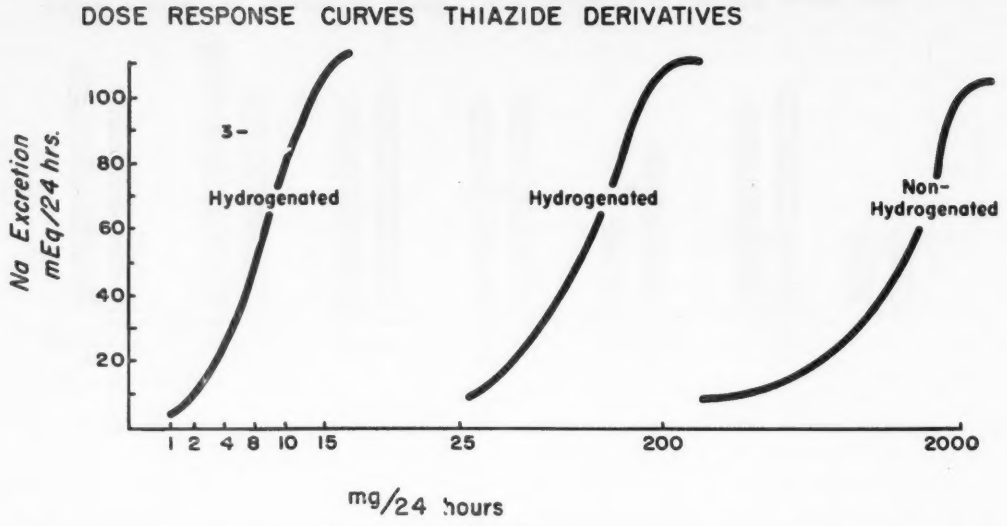

Figure 3

Comparative dose response curves (based on natriuretic effectiveness) obtained with 3-hydrogenated, hydrogenated, and non-hydrogenated thiazide derivatives.

Continued administration of thiazide derivatives may produce various electrolyte disturbances including hyponatremia and hypokalemia. The potential occurrence of these iatrogenic electrolyte imbalances must be anticipated so that they may be promptly controlled. Since hypokalemia predisposes to myocardial irritability, it is not surprising that cardiac arrhythmias may be observed during the administration of thiazides, especially in patients receiving digitalis therapy.

Hyperuricemia and decrease in urinary uric acid excretion have also been reported (11). Occasionally these effects aggravate pre-existent gouty arthritis or cause the initial appearance of clinical gout in patients with latent gouty diathesis. This effect may be controlled, if necessary, with probenecid therapy.

Phthalimidines. The most recent addition to the clinical diuretic armamentarium is the phthalimidine diuretic, chlorthalidone (Hygroton®). This compound appears to act primarily at the proximal renal tubule where it inhibits sodium reabsorption. Although potassium excretion is also increased, a favorable sodium:potassium ratio exists. The onset of activity with this drug is rapid. In contrast with the thiazide derivatives, however, chlorthalidone has a more prolonged activity which persists for twenty-four to seventy-two hours (see Figure 4). This property often allows the patient with chronic edema to be maintained on a tri-weekly dosage schedule (12).

The effective dose range of chlorthalidone is 50-200 milligrams. Although prolonged clinical studies are not yet available, it appears that chlorthalidone possesses the following combined therapeutic advantages: (1) high potency, (2) prolonged action, and (3) favorable sodium:potassium excretion ratio.

Aldosterone Antagonists. Although an excess of aldosterone is not sufficient to cause edema in the absence of a circulatory disorder, there is good evidence to implicate aldosterone as an important contributing factor in most clinical edema states. Hence it is reasonable to treat edematous patients with aldosterone antagonists. The first compounds found to be effective in antagonizing the sodium-retaining actions of aldosterone have been the steroidal 17-spirolactones. Of these, spironolactone (Aldactone®) has been of particular clinical value because of its oral activity.

That the spirolactones act by antagonizing aldosterone at the distal renal tubular level is based on the following observations:

1. In normal subjects maintained on salt-restricted diets, the spirolactones produce a sodium diuresis with potassium retention but without any change in glomerular filtration rate or renal plasma flow (13).

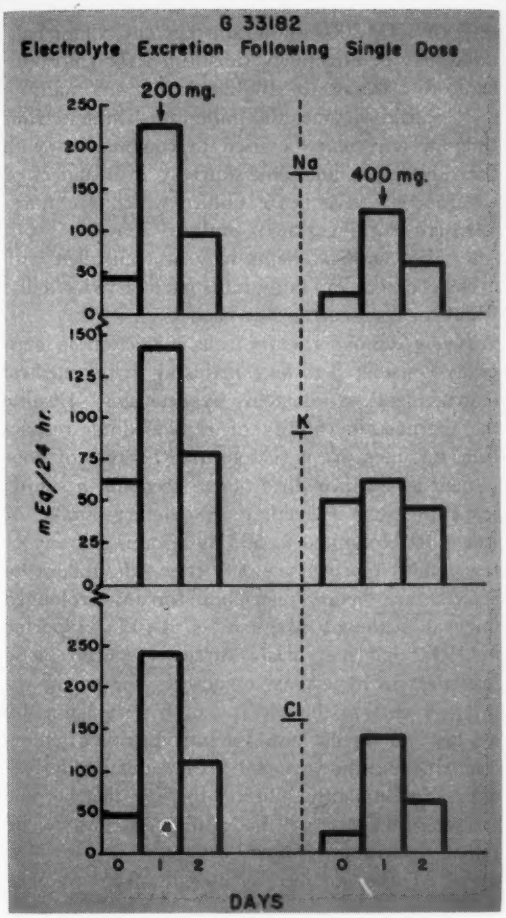

Figure 4

Duration of electrolyte excretion following the administration of single 200-mg and 400-mg doses of chlorthalidone. The sodium excretion remains above control levels for 48 hours or more.

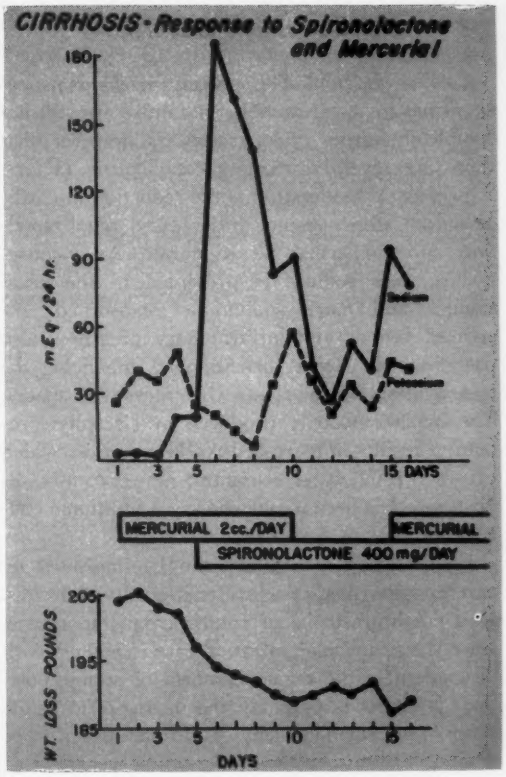

Figure 5

A significant natriuresis was obtained with spironolactone used in combination with a mercurial diuretic, whereas the drugs used alone produced an insignificant response.

2. Stop flow experiments in dogs have localized the action of the spirolactones to the distal tubules (14). Their similarity in chemical structure to aldosterone suggests that the action of the spirolactones is related to the competitive inhibition of aldosterone at the same distal tubular site.
3. The spirolactones have no effect on urinary electrolyte excretion in the absence of aldosterone (15).
4. The electrolyte excretion pattern observed with spirolactones is similar to that resulting from the abrupt withdrawal of aldosterone (16).

The diuretic action of the spirolactones is neither rapid nor massive. Hence following continuous daily administration, a delay of one to three days may elapse before a significant diuretic response occurs.

The clinical usefulness of the antialdosterone agents is based especially on two pharmacologic findings: (1) the combination of spirolactones with thiazide derivatives or mercurials potentiates the effectiveness of the latter agents, and (2) the antialdosterone agents oppose the potassium-wasting actions of the thiazide derivatives, mercurials, phthalimidines, and carbonic anhydrase inhibitors. Hence the most important clinical applications of the antialdosterone agents, at present, are in those patients who do not respond satisfactorily to other diuretic regimens (see Figure 5). The usual dosage of spirolactone is 100 to 200 milligrams given three or four times per day.

CLINICAL APPLICATION

Cardiac Edema. The precise mechanisms responsible for congestive heart failure are still not completely agreed upon. It appears, however, that there are several important contributing factors. A primary consideration is the reduction in cardiac output which results in decreased renal blood-flow and glomerular filtration rate. As a consequence, less sodium is presented to the renal tubules and more sodium is reabsorbed. Increased venous and intracapillary pressures also contribute to edema formation by enhancing the transudation of fluid into the interstitial spaces. The hyperosmolarity produced by electrolyte retention results in increased ADH secretion, which causes further water retention; more recently, aldosterone has been implicated as an additional contributing factor.

Congestive heart failure can be improved by rest, digitalis, dietary salt restriction, and diuretics. Rest continues to be of fundamental importance, since the glomerular filtration rate is highest with the patient in the semi-recumbent or supine position. Digitalis is probably the most useful single drug in the management of cardiac failure, for it tends to improve the fundamental weakness of cardiac contraction. In addition, sodium restriction is of obvious importance and should be outlined to the patient precisely. A restricted salt intake of three grams daily may be adequate in instances of mild heart failure, but in patients with severe congestion the salt intake should be restricted to one gram per day or less.

Various diuretic regimens may further enhance the natriuretic response:

1. Parenteral meralluride (Mercuhydrin®) or mercaptomerin (Thiomerin®), 2 cubic centimeters daily for three to five days, may be used initially. When necessary, the natriuretic effect of the mercurials may be potentiated with aminophyline. For this purpose, 500 milligrams of aminophyline may be given intravenously (or per rectum) one hour after the mercurial injection. Either acetazolamide, or ammonium chloride, both of which produce hyperchloremia, may also be used to potentiate the effectiveness of the organomercurials.

2. After decompensation has improved, chlorothiazide (or any other thiazide derivative in equivalent natriuretic doses) may be given in a dose of 1000-2000 milligrams per day. Chlorthalidone may be effectively substituted for chlorothiazide in a dosage of 100-200 milligrams daily.

3. Spironolactone, 100 milligrams three or four times a day, may be used in combination with thiazide or phthalimidine diuretics in instances of severe congestive heart failure which are unresponsive to the regimens outlined above.

4. Mild cardiac edema may be controlled with acetazolamide, 250 milligrams once or twice daily, for three consecutive days each week.

Hypertension. Dietary salt restriction is generally considered to be a mainstay in the medical management of diastolic hypertension. Despite the therapeutic validity of rigid sodium restriction, this measure is seldom used because of poor patient acceptance. In order to accomplish significant pressure reduction, the dietary intake of salt must be limited to 500 milligrams per day or less; few hypertensive subjects will adhere to such severe dietary restriction for any prolonged interval. Although Megibow et al (17) reported in 1948 that mercurial diuretics reduced blood pressures in hypertensive subjects, the use of diuretic agents in the therapy of hypertension did not become popular until the introduction of chlorothiazide and the various benzothiadiazine derivatives. Subsequently diuretic therapy has become an integral part of the antihypertensive drug armamentarium.

All of the various natriuretic drugs possess antihypertensive abilities, Despite this response, however, only the benzothiadiazine and phthalimidine compounds have thus far come to play an important role in the diuretic management of hypertensive disease. Parenteral mercurial therapy, although effective, is difficult to maintain in the long-term treatment of hypertension because of the need for frequent injections. Although the oral mercurial compounds possess moderate antihypertensive abilities, the oral drugs are less potent and not as well tolerated as the parenteral compounds. The carbonic anhydrase inhibitors possess only modest antihypertensive action, corresponding to their modest natriuretic activity. The xanthine and cystosine derivatives are even milder sodium-depleting agents, and their hypotensive effectiveness is correspondingly less.

The thiazide derivatives and the phthalimidine diuretics are more ideally suited to the long-term therapy of hypertension. The antihypertensive

effectiveness of the thiazide diuretics has now been confirmed by numerous investigators. A recent study (18) indicated significant blood pressure reduction in approximately 40 per cent of patients treated with chlorothiazide, hydrochlorothiazide, and flumethiazide. The dosages administered were 1000 milligrams daily of chlorothiazide or flumethiazide and 100 milligrams per day of hydrochlorothiazide. Equivalent natriuretic dosages of other thiazide derivatives or chlorthalidone produce similar antihypertensive responses (see Table I).

Maximum effectiveness is achieved when the thiazide derivatives are used continuously rather than intermittently. In fact, the blood pressure will often return to the pre-treatment levels if the drugs are discontinued for a three-day period. Salt restriction should be practiced but should not be too rigid; specifically a daily salt intake of 3-4 grams is recommended. In the absence of complicating renal disease or congestive heart failure, prophylactic electrolyte supplements (including potassium) are rarely required if 1000 milligrams of chlorothiazide daily (or its equivalent) are not exceeded.

Equally important to their individual antihypertensive actions, the thiazide derivatives also significantly potentiate the effectiveness of the other available antihypertensive agents. The combination of thiazide derivatives with other hypotensive drugs will frequently accomplish the desired anthypertensive effect in those subjects who do not respond to diuretic therapy alone. When thiazides are used in combination with rauwolfia, approximately 60 per cent of hyptertensive patients will achieve significant blood pressure reduction. Even greater responses can be achieved with thiazide derivatives used in combination with hydralazine, guanethidine, or the ganglion blocking compounds.

TABLE I. BLOOD PRESSURE RESPONSE TO VARIOUS DIURETIC REGIMENS

Drug Regimen	No. of Patients	Supine				Erect			
		Normotensive*		Mean Blood Pressure Reduced > 20 mm Hg or Normotensive		Normotensive*		Mean Blood Pressure Reduced > 20 mm Hg or Normotensive	
		No.	%	No.	%	No.	%	No.	%
Acetazolamide (daily)†	19	2	11	3	16	4	21	4	21
Acetazolamide (intermittent)‡	14	1	7	2	14	0	0	2	14
Chlorothiazide**	50	9	18	18	36	12	24	23	46
Hydrochlorothiazide**	54	11	20	21	39	12	22	21	39
Flumethiazide**	17	2	12	7	41	8	47	9	53
Chlorthalidone***	25	6	24	10	40	9	36	13	52

*Blood pressure reduced to 150/90 mm Hg or less.
†250-500 mg of acetazolamide daily.
‡250-500 mg of acetazolamide, 4 days per week.
**The dosage of chlorothiazide was 500 mg B.I.D., hydrochlorothiazide 50 mg B.I.D., and flumethiazide 500 mg B.I.D.
***200 mg of chlorthalidone daily.

Dr. Danowski: It would appear, Dr. Moyer, that the mercurials are still effective agents. Is this your feeling?

Dr. Moyer: I think so.

Dr. Danowski: If you have your choice of diuretics in the severely ill patient, which one would you use first?

Dr. Moyer: I would use a mercurial, if the patient was in the hospital and administration was not a problem; that is, if the drug had to be given parenterally.

Dr. Danowski: Would you use it with ammonium chloride?

DR. MOYER: Right.

DR. DANOWSKI: In other words, despite the advent of many new drugs, we reach the conclusion that the mercurials are still diuretics of choice.

Dr. Moyer has pointed out that the newer drugs are not more potent than organic mercurials, and that the principles that have been established now for several decades in the use of organic mercurials still apply.

DR. MOYER: Actually, there is a danger that when a drug can be taken by the oral route, it may be used indiscriminately with the patient indulging in self-medication.

DR. DANOWSKI: Yes, I think this is a real hazard.

Q. The question was the treatment of chronic cardiac failure with oral mercurials?

DR. MOYER: I think that they're quite effective actually. I believe we can summarize this quite briefly. The drugs are, first of all, only about 15 to 20 per cent absorbed in the gastrointestinal tract, so you have to give relatively large doses. You're talking now about Neohydrin®, I suspect; so that to get an effective dose which is equivalent to about 1 cubic centimeter of Mercuhydrin®, you have to give at least six to eight tablets a day. This is an effective dose.

The problem here simply is that at this dose, 25 to 30 per cent of those patients will develop gastrointestinal upsets, either diarrhea or gastritis. This doesn't mean that you shouldn't use the drug. What I would do is to give the drug a trial. If it produces intolerable side effects, you have to discontinue it for another compound at that dose. If it doesn't produce these side effects, I think it's probably the best therapeutic agent available.

Q. In large doses what effect do spirolactones have on blood pressure in a hypertensive?

DR. MOYER: I must say that there is a deviation here between our observations and those of Dr. Hollander in Boston. I think we're right, but I'm not sure. I mean, I'm not that conceited that I would close the door on the possibility. But we have found that they are not very effective as antihypertensive agents and not nearly as effective as the thiazide derivatives, pointing out, first of all, that the thiazide derivatives are useful primarily as adjunctive therapy for drugs which depress the sympathetic nervous system and not very effective in their own right. In other words, they do not make a serious hypertensive patient normotensive in the majority of cases, and these are the patients who really need therapy.

As far as Aldactone®, in our experience it just does not seem to be in the same league with the thiazide derivatives, but Dr. Hollander, I believe, thinks that they are effective.

DR. DANOWSKI: It may be that the effectiveness or non-effectiveness of aldosterone antagonists depends upon the role of sodium retention in the genesis of the hypertension. If you have a patient in whom there is hypertension as a result of sodium retention (even though without edema) and such sodium retention is on the basis of aldosterone excesses, then the aldosterone antagonist might work well.

DR. MOYER: I might add in that regard that an increase in aldosterone has been demonstrated in the very severe hypertensives and in the malignant hypertensives, but not in the average hypertensive, irrespective of diastolic pressure. It could be that in those particular severe hypertensives the aldosterone antagonists are particularly effective.

DR. DANOWSKI: Yes. Probably half or more of the hypertensives have increased urinary aldosterone levels. When this is a significant component in the hypertension, an aldosterone antagonist might well work but in the others it will not.

DR. MOYER: This is less than 5 per cent of the average office patients with hypertension.

Q. Do you frequently see patients who have been responsive to mercurials and then lose their response. What should you do?

DR. DANOWSKI: The question is the loss of responsiveness to mercurials upon repeated dosage. Would you tell us whether the chloride is normal in these people?

Q. Yes.

DR. MOYER: Well, I assume that the electolytes are normal in this patient—potassium, sodium, and chloride—and what I would do in this patient is—

DR. DANOWSKI: Review the whole program and start all over? Reduce the sodium and put the patient to bed; redigitalize him to the point of toxicity, if necessary, and then try again. If the mercurial doesn't work, perhaps some other one will. Finally, remember that at one point or another, you're going to lose the battle. I think that after you have reviewed the situation and found that everything possible is being done, you must become resigned to the fact that some patients cannot be helped.

DR. MOYER: However, there are three steps that I would take in this losing battle. First, start with the ammonium chloride, and give the mercurial every other day; on the intervening day load the patient up with ammonium chloride, using at least two or three grams.

If this is ineffective, the patient is probably oliguric and probably has a lot of albumin in the urine, indicating a fair amount of secondary renal disease. Under these circumstances, I would give intravenous aminophyllin. If the patient is in the hospital, I would put the aminophyllin in the same infusion apparatus of about 200 cubic centimeters of glucose along with the mercurial and infuse them together. This will increase the glomerular filtration rate and, at the same time, deliver the mercurial to the tubules where it is effective.

The third thing, when one diuretic is not effective, often another will be, because of a slight difference of action. I would then discontinue the mercurial and give about 1000 milligrams of chlorothiazide every hour for two days. I would then go back to the mercurial. One thiazide derivative may not be effective or may lose its effectiveness, so I would switch to the other one. The slight difference of action will again produce natriuresis. One of the important tricks is to rotate among the various diuretics.

DR. DANOWSKI: We have come to the end of our time. I want to thank you for your participation, Dr. Moyer, Dr. Stauffer, and the audience.

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ARTICLE OF INTEREST

ANSWERS TO QUESTIONS FREQUENTLY ASKED ABOUT

MEDICAL HYPNOSIS

Jacob H. Conn, M.D.*

1. What is the hypnotic "state"?

THE HYPNOTIC STATE is not a fixed state or static condition; it is a particular kind of interpersonal relationship which develops between the subject (patient) and the operator (physician-hypnotist). Each participant influences and is influenced by the other. The doctor may assume the role of a teacher, but to the hypnotized patient he represents and portrays an omnipotent person from whom the patient hopes to obtain magical relief from pain and distress. The patient, therefore, permits increasing restrictions to be placed upon his sensory intake and motility and excludes all extraneous stimuli except those which the medical hypnotist brings to his attention. Thus, the patient's need to gratify certain infantile wishes neatly fits in with the hypnotist's role, which permits the patient, for example, to express his irrational hostility to significant persons and yet be forgiven and healed "magically."

2. What does the general practitioner have to know about hypnosis?

SINCE THE PATIENT reacts in the hypnotic situation in keeping with his basic emotional needs, the doctor must learn all that he can about the patient's "defenses," the manner in which each patient reacts to him and to the treatment situation. Does the patient have a fear of losing control or does he have a need to be the stronger and, therefore, resists being hypnotized? Is the patient concerned that he will fail, as he has failed in other aspects of his life, or does he desire to be humiliated and overpowered? Is he becoming anxious as the close interpersonal relationship to the physician develops?

Whether a doctor remains a mere technician or becomes an effective medical hypnotist will depend upon his understanding of these motivational principles, which are part of the study of psychodynamics. The practitioner who remains unaware of the underlying motivations of his patients will sooner or later hypnotize a severely disturbed, anxiety-ridden patient who presents the external appearance of perfect calm and complete emotional control or a pre-psychotic patient who hopes to have a "spell" removed by hypnosis but who only tells his physician that he suffers from headaches. The report of the British Medical Association (1955) contains the statement that "hypno-

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tism may involve the rapid or immediate development of a relationship between the hypnotist and subject of the same order as is produced more slowly in the course of psychotherapy . . . The application of hypnotic technique without such knowledge and experience provides no control of the powerful emotions which may be released."

3. What are the dangers of hypnosis?

DIFFICULTIES ARISE not because of the hypnotic process itself, but because hypnosis is being used inappropriately or for a patient whose condition does not warrant its use. When skillfully and properly used within the limits of the practitioner's professional skills and training, hypnosis is the least dangerous of all therapeutic techniques. Proper diagnosis of the patient's condition and evaluation of his personality assets and liabilities are prerequisites for hypnosis. Any person with average intelligence can learn to hypnotize, just as he can learn to use a hypodermic or to perform certain surgical procedures. The art of medicine, in contrast to its technical aspects, teaches us not only what procedure to use but also the judgment when to use it, how much to use it, and when not to use it. The era of the "quick" course in hypnosis is over. It was only a transitional period which helped to emphasize the imminent need for medical schools to include postgraduate training in hypnosis in their curriculum.

There are remarkably few specific dangers if proper precautions are taken. There is the delay in the selection of a more effective method of treatment and the raising of false hopes when the patient's condition does not warrant the use of hypnosis. There is the danger of failing to remove "suggestion" given to the hypnotized patient in a stage setting which might linger after the hypnotic relationship has been terminated. There is the danger of releasing pent up emotions without an informed supporting and guiding control, and there is the occasional danger that a susceptible somnambulistic patient might spontaneously reenter a "trance state." Nevertheless, most experienced medical hypnotists agree that the dangers associated with hypnosis have been greatly exaggerated. There is no single instance, for example, that a patient who has been hypnotized repeatedly has become dependent upon the hypnotist. It also is uncommon for any but the highly disturbed patient to relinquish one symptom and to substitute another. It takes more skill to induce the "trance" relationship than to "arouse" the patient. Failure to be alert ("to de-hypnotize") usually is due to "hostility" to the hypnotist or to the patient's enjoyment of his relaxed carefree experience, which he does not care, for the time being, to exchange for his "troubled" life situation.

4. What are the uses of hypnosis?

HYPNOSIS CAN BE USED to relax, to relieve pain, to alleviate anxiety, to facilitate the recall of traumatic events, and to "regress" the patient to earlier life periods in order to recapture repressed significant memories. In *selected* cases hypnosis has been used to relieve pain in terminal cancer, severe burns, phantom limbs, and both minor and major surgery. It has been helpful in controlling anxiety in dental care and in reducing the amount of analgesic drugs used in obstetrics. It has been reported as being of value in habituation (excessive smoking), obesity, psychogenic stuttering, and in the removal of warts and other skin conditions. It has been used successfully in the treatment of hysterical depressions, anxiety-tension states, neurotic sex offenses, conversion hysteria, and hysterical amnesia. A number of psychosomatic conditions have been treated effectively.

Each patient must be carefully selected and evaluated in regard to his motivation, "secondary gain" (his need to control those around him, his craving for sympathy or self-punishment, his demand for retribution and pecuniary compensation). His ability to live comfortably without his neurotic "crutches" must be studied in every case. Excellent results have been obtained in the "light" stages of hypnosis. The patient may be in "deep" hypnosis (and demonstrate analgesia, posthypnotic amnesia, and the ability to hallucinate on command), yet the therapeutic result may be minimal because the patient "forgot" (repressed) what he said and did during hypnosis. What is important is not how "deep" the patient can be hypnotized but to what degree he participated and became emotionally involved in the hypnotic experience and whether he retained and fully grasped what he had discussed while hypnotized. The doctor cannot speed up the healing process by telling the

hypnotized patient what is wrong and how to get well. The patient will recover not because he uncovered a repressed memory but because he is ready and able to live without his neurotic encumbrances. The medical hypnotist only "sets the stage"; it is the patient who permits the hypnotic relationship to develop by passive compliance and selective attention until the words of the hypnotist are "heard" as if they were the patient's own thoughts.

The general practitioner should always begin by using waking suggestion, since certain patients are more suggestible when fully awake. The present vogue is to urge the patient to recall a single traumatic event. It should be emphasized that the hypnotized patient can prevaricate and fabricate memories in order to please the hypnotist. Each hypnotist, therefore, obtains those memories which he repeatedly has indicated to his subjects as being the ones that interest him. Furthermore, just because a patient can recall a repressed event, it does not follow that his neurotic condition must necessarily improve. The doctor who tries to cure his patients before they are fully prepared to remain well is like the Boy Scout who after escorting a struggling old lady across a busy street was told, "Young man, I was going the other way!"

5. What personality patterns contraindicate hypnotherapy?

THE TWO DEFINITE contraindications to the use of hypnosis are the pre-psychotic and the psychotic conditions. The pre-psychotic patient already is on the verge of a severe mental disorganized state. If he is a religious person, he may complain that he cannot pray and feel comforted as he did previously. His mood is either too low (despondent) or too high (elated). The pre-psychotic patient may be apathetic and withdrawn, having no friends or social outlets; his thinking is unrealistic and bizarre ("I can feel blood dripping in my brain"). An important issue is the patient's ability to fully appreciate what he himself has contributed to his troubles. The psychotic patient denies any personal responsibility. It is "they" who are persecuting him, talking about him, or tampering with his food. The delusional patient should not be hypnotized because of the possibility of becoming involved in his paranoid system.

The best patients are those who have an excellent appraisal of reality, a strong ego organization (a good work record, an ability to enjoy recreation, and a fairly adequate sex life), and no complicated defense system (such as delusions or severe obsessions). The use of hypnosis is never the "cause" of a patient's psychosis. The psychotic process usually has been going on for many months or even years before it becomes manifest in overt behavior (peculiar behavior, suicide, or delusions). Neither one nor many hypnotic sessions can precipitate a psychosis in the average patient.

6. Are there specific conditions, either primarily or secondarily medical, in which there are appreciable advantages in hypnotherapy over other means of treatment?

THE MOST ACCEPTED use of hypnosis is in the relief of pain and fear during childbirth. It is specific for the treatment of functional amnesia: A high school student "awoke" to find himself a hundred miles away from his home town and could not recall what had happened; with the help of hypnosis, the boy remembered starting out to a cadet drill which he wanted to avoid and hitchhiking to the other city.

Hypnotherapy is of value in the removal of mono-symptomatic complaints in conversion hysterias: A young married woman was relieved of a torticollis which developed suddenly while talking to her philandering husband. While in the hypnotic relationship, the patient expressed her hostile feelings and recovered after three sessions. Most experts agree that there is no danger in removing a symptom. The symptom is not replaced by another except in extremely disturbed, unstable individuals, who require their symptoms to "balance" themselves. Certain obese patients respond well to hypnosis; others lose weight initially then resist further treatment. One such patient stated that she was becoming so beautiful and desirable that she would not be able to say "no" to her many admirers!

The Journal of the American Medical Association (1) has published a report of "Personality Decompensation After Hypnotic Symptom Suppression." The patient was a 41-year-old successful sales executive who had developed a phobia against air travel. He was hypnotized, "enjoyed" the flight, but felt depressed and anxious on the following day. Then he began "analyzing every-

thing" and "remained in bed trembling and afraid to move." He had to be admitted to a psychiatric hospital. He resumed his "usual way of life" after a number of months. This patient had been an aggressive, guilty, hostile, worrisome individual who had compulsively masturbated with sadistic "flagellation" fantasies. On the other hand, I hypnotized an easygoing, happily married man who is able to relax with his friends and who enjoys his work. He had developed a flight phobia after several rough flights and reading about a plane crash. There was no symptom substitution, and the patient was pleased with his confidence to fly after four hypnotic sessions. When the doctor knows whom he is hypnotizing and avoids hypnotizing a pre-psychotic patient, there is no danger of producing a "personality decompensation." The motivations and feelings of every patient should be properly understood and given adequate consideration and support.

Medical Arts Building
Baltimore 1, Maryland

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Newly Licensed Physicians

At reciprocity meetings held June 30, July 27, and August 11, the Board of Medical Examiners of Maryland granted Maryland licenses to the following physicians.

Alamprese, Donato Joseph, Pennsylvania
Arnold, William Henry, National Board
Banks, James William, Arkansas
Berdach, Otto, Illinois
Black, Perry, National Board
Bloom, Joseph, National Board
Braton, Ogden Carr, North Carolina
Braunlin, Earl Albert, Indiana
Brezina, Edward Sharp, Washington
Brown, Alvin Montero, Georgia
Carter, Thomas Nelson, National Board
Chamberlin, Frank Harry, North Carolina
Cillo, Joseph James, National Board
Collins, Nathaniel Perryman, Texas
Conkling, Frederic Everett, III, National Board
Cooper, James Fenimore, Georgia
Creamer, John Joseph, National Board
Demis, Dermot Joseph, National Board
DeVore, Paul Angus, National Board
Ellis, George Joseph, Jr., National Board
Fender, William Noel, Virginia
Fisher, Robert Lyle, National Board
Gangarosa, Eugene John, National Board
Gantz, Frank Elwin, Jr., National Board
Geise, Ralph William, Pennsylvania
Goshen, Charles E., New York
Hatcher, Charles Ross, Jr., Georgia
Jude, James Roderick, Minnesota
Keeton, J. E., Alabama
Levy, Donald Marvin, Virginia
Lull, Clifford Bell, Jr., Pennsylvania
Madison, Stanley Dave, Ohio
Maxfield, William Streeter, Texas
McLaurin, Angus Winston, North Carolina
McLean, William Thaddeus, Jr., North Carolina
Merkle, Robert Woods, National Board
Messina, John Joseph, National Board
Meyer, Paul Donald, National Board
Moody, Edson Bridges, Nebraska
Morris, Russell Edwards, Jr., Mississippi
Mulholland, John Henry, North Carolina
Pfeifer, Jacob John, New York
Priest, James Alfred, Ohio
Salan, Jerry, National Board
Sanders, John Alan, National Board
Schanno, Joseph Francis, National Board
Seitchik, Joseph Norman, Pennsylvania
Toole, William Nisbet, Georgia
Weber, Francis John, District of Columbia
White, Nicholas, Indiana
Winshel, Alan William

In addition, licenses were granted to 194 physicians who passed the examination conducted by the State Board of Medical Examiners in June.

Abraham, Kristof	**Baron, Neville A.**	**Browne, F. J.**	**Clark, John W.**
Aldave, Alfredo B.	**Berger, Elwin**	**Bulger, James C.**	**Cloninger, K., Jr.**
Alexander, D. J.	**Berkow, J. W.**	**Buschman, H., Jr.**	**Combs, Jerome T.**
Antonius, J. I. B.	**Bing, O. H. Lee**	**Buyukunsal, N. N.**	**Cozine, K. A. W.**
Appleyard, F. L.	**Blum, Myron B.**	**Cain, Donald L.**	**Cozine, Richard A.**
Arbegast, Neil R.	**Blumer, D. F.**	**Cantolino, S. J.**	**Davidson, M. M.**
Avery, Herbert B.	**Boccuti, A. R.**	**Cargille, C. M.**	**Delli-Pizzi, G. M.**
Bachur, N. R., Sr.	**Bower, P. J.**	**Carter, Darryl**	**Diacoyanis, J. N.**
Baker, C. R., Jr.	**Brouillette, J. N.**	**Casselis, K. B.**	**Dudney, W. H.**
Bandy, George E.	**Browell, J. N., Jr.**	**Celgin, Halil S.**	**Dyke, Murial K.**
Bankes, Carl R.	**Brown, Paul W.**	**Cerda, James J.**	**Ellis, Richard**
Bargainer, J. D.	**Brown, Torrey C.**	**Chernick, Victor**	**Evans, Stanley J.**

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BALTIMORE CITY MEDICAL SOCIETY

CONRAD ACTON, M.D.

Journal Representative

The meeting of the Executive Board on Tuesday, September 5, was a long one. Many matters of importance had accumulated during the summer. President Wainwright first reported about specialty listing in the telephone directory. The Maryland Attorney General's office, under the letterhead of the State Law Department, reported to **Frank K. Morris, M.D.**, secretary of the Board of Medical Examiners of Maryland, as follows:

"Since listing in the phone directory of the physician's name, address, and telephone number has never been considered advertising as such, I can find no prohibition in the Medical Practice Act which would bar a physician from listing his specialty. It seems to be the intent of the General Assembly of Maryland that a physician, in listing his name and title, is also authorized to list his specialty and, in so doing, does not violate the spirit or intent of the prohibition against advertising."

In the general discussion that followed, it evolved that most members of the Executive Board felt that this was an individual matter. They decided that the Society could not exercise any veto power in regard to individual qualifications for claiming specialty listing.

The chairman of the Membership Committee had written suggesting that a House Staff Night for one of the regular meeting nights would be desirable. It was recalled that in past years we had such meetings. More recently these have been held by the specialty sections. The letter was referred to the chairman of the program committee as being a worthy idea.

As residents of the Mount Vernon area, our help is sought by the Baltimore Urban Renewal Agency. Because of the large number of physicians' offices located in the area, it was asked that there be some contact with the medical profession as to its needs in the development of the plan for the Mount Vernon area. Liaison with the medical profession could ensure that the physicians are informed as to Renewal Agency plans. The Executive Board was glad to be asked to have a voice in this important matter. The president will appoint three or four physicians as requested.

A request was received from the Faculty for a review of the State's Medical Care Program by the Component Societies. The Executive Board agreed that an educational program for many of the members was needed, as well as for physicians who are not members. The public opinion aspect in how well Maryland implements its plan is most important. The state level program of Medical Assistance to the Aged has apparently had some rough sledding. The Faculty is to be requested to give us its idea of what it wants and how we can best embark on the type of informational-educational program that could be most effective.

The president of the Health and Welfare Council of the Baltimore Area reported that it is presently conducting a survey on homemakers services in metropolitan Baltimore. The purpose of this survey is to determine the adequacy of the present homemakers services and to make recommendations and plans for extension of service if indicated. Since Baltimore physicians have an interest in homemakers, in relation to chronically ill patients and those recuperating from acute illnesses, the request that the Baltimore Medical Society appoint a member to the Health and Welfare Council's

Homemaker Service Committee for purposes of liaison and special advice seems pertinent. The Executive Board agreed that this was an area in which the City Society did indeed have an interest, and a representative is to be appointed.

Under the letterhead of the same Health and Welfare Council of the Baltimore Area is a proposal for a cooperative project with the U. S. Public Health Service to coordinate, at Baltimore City Hospitals, out-of-hospital services for the chronically ill and disabled. The prospectus sent to the City Society for approval states, "It is proposed that a demonstration be conducted in coordinating and developing those out-of-hospital services which will make it possible for patients to leave hospitals and nursing homes or to remain at home when this is medically indicated. The services include referral and placement, transportation, meals-on-wheels, lending of equipment, homemaking, and instructions in homemaking and other activities by the patient." It is not expected that the City Society will contribute any part of the $243,800 in its budget. The Executive Board raised several eyebrows and decided that it approved the principle, perhaps, if carried out through existing agencies, but was unalterably opposed to the corporate practice of medicine as spelled out in this prospectus. The Board fails to see justification for such a huge budgetary outlay, nor does it condone socialized medicine anywhere.

A letter from Mrs. Robert Kimberly, hospitality chairman of the Woman's Auxiliary, asked whether we desire to have refreshments after our meetings. The Executive Board gravely decided that it does. It appreciates very much the serving and providing of the coffee, cocoa, and donuts, which we enjoy after our meetings.

After the Executive Board adjourned, its members met with the City delegates and some of their alternates to review the agenda for the Faculty's Semiannual Meeting. In a relatively uncommunicative mood, the delegates heard the report of the Bylaws Committee. The proposed changes were generally concurred with. The various resolutions were likewise reviewed. No particularly strong sentiments were expressed.

At the close of the session, it was emphasized that the privilege of organizing under a chairman for more effective action was the privilege of the delegates if they wished to do so. They were reminded that they were to act as individuals for the best interests of the profession as a whole and not to consider themselves bound by any resolution or action that had not been voted at a meeting of the City Society. Since none of these resolutions or bylaws had originated or been passed officially by the City Society, the delegates and alternates are on their own.

One interesting parliamentary complication arose. It seems that neither one delegate nor his alternate will be able to attend the meeting. The president was authorized to appoint as delegate one of the available alternates.

ANNE ARUNDEL COUNTY MEDICAL SOCIETY

SAMUEL BORSSUCK, M.D.

Journal Representative

The September meeting of the Anne Arundel County Medical Society was held in the recreation room of the Nurses Home at the Anne Arundel General Hospital in Annapolis. A buffet supper, courtesy of the hospital administration, was enjoyed by the large group attending. **Henry N. Wagner, Jr., M.D.**, of Johns Hopkins, gave an excellent talk on "Radioactive Isotopes in Clinical Medicine." A short discussion and answer period followed Dr. Wagner's talk. A film on poliomyelitis and the oral Sabin vaccine was shown. New members and guests were introduced.

The secretary presented the correspondence, and several subjects were discussed at some length.

It was decided that the November meeting of the Anne Arundel County Medical Society will be held in the northern part of the county and that it will be a "dutch treat" dinner. At

that meeting, it was announced, **John Sargeant,** from the Medical and Chirurgical Faculty, will speak.

After the report of the Executive Committee, delegates to the semiannual meeting gave their report. The role of the individual members and of the County Medical Society in the fight against socialized medicine was stressed by the delegates. A supply of pamphlets was made available to the members for distribution to their patients and for placement in their waiting rooms.

After the treasurer's report, a motion was made that the annual dues be raised from the present $13.00 to $15.00 per member.

T. H. Kim, M.D., Donald C. Smith, M.D., and **Charles E. Hill, M.D.,** were elected to membership in the Anne Arundel County Medical Society. This brought the Society's total membership to one hundred.

FREDERICK COUNTY MEDICAL SOCIETY

L. R. SCHOOLMAN, M.D.
Journal Representative

Following the annual estivation, the Society met on September 19 at the Francis Scott Key Hotel. **Thomas DeKornfeld, M.D.,** was scheduled to talk on "Analgesia and the Newer Analgesic Agents." On that day, however, Hurricane Esther's threats were dire enough to make the hundred-mile trip for Dr. DeKornfeld unwise. The members sought solace at the bar. Then, after a hearty dinner of roast beef, they loosened their belts to attend to business matters.

Two more general practitioners were admitted as members in our Society: **Jean Poirior, M.D.,** and **Robert Shelby Hughes, M.D.** After our previous meeting in June, I reported the admission of three new physicians and gave thanks for such relief. Now one begins to feel that our blessings are really overflowing.

Our senior delegate to the Medical and Chirurgical Faculty's semiannual meeting summarized the proceedings at Ocean City. He told of the acceptance and rejection of various resolutions and described the talk by the Reverend Robert Varley, of Salisbury, a member of the AMA Speakers Bureau, as stirring. Having also heard the talk, delivered to a captive audience, I also found it stirring. Reverend Varley's lumping of Hoffa, Reuther, and President Kennedy as proponents of "idiotic collectivism" was most revealing; shades of McCarthy and shadows of Birch!

MEDICAL PHARMACOLOGY, Andres Goth, M.D. St. Louis: The C. V. Mosby Company, 1961.

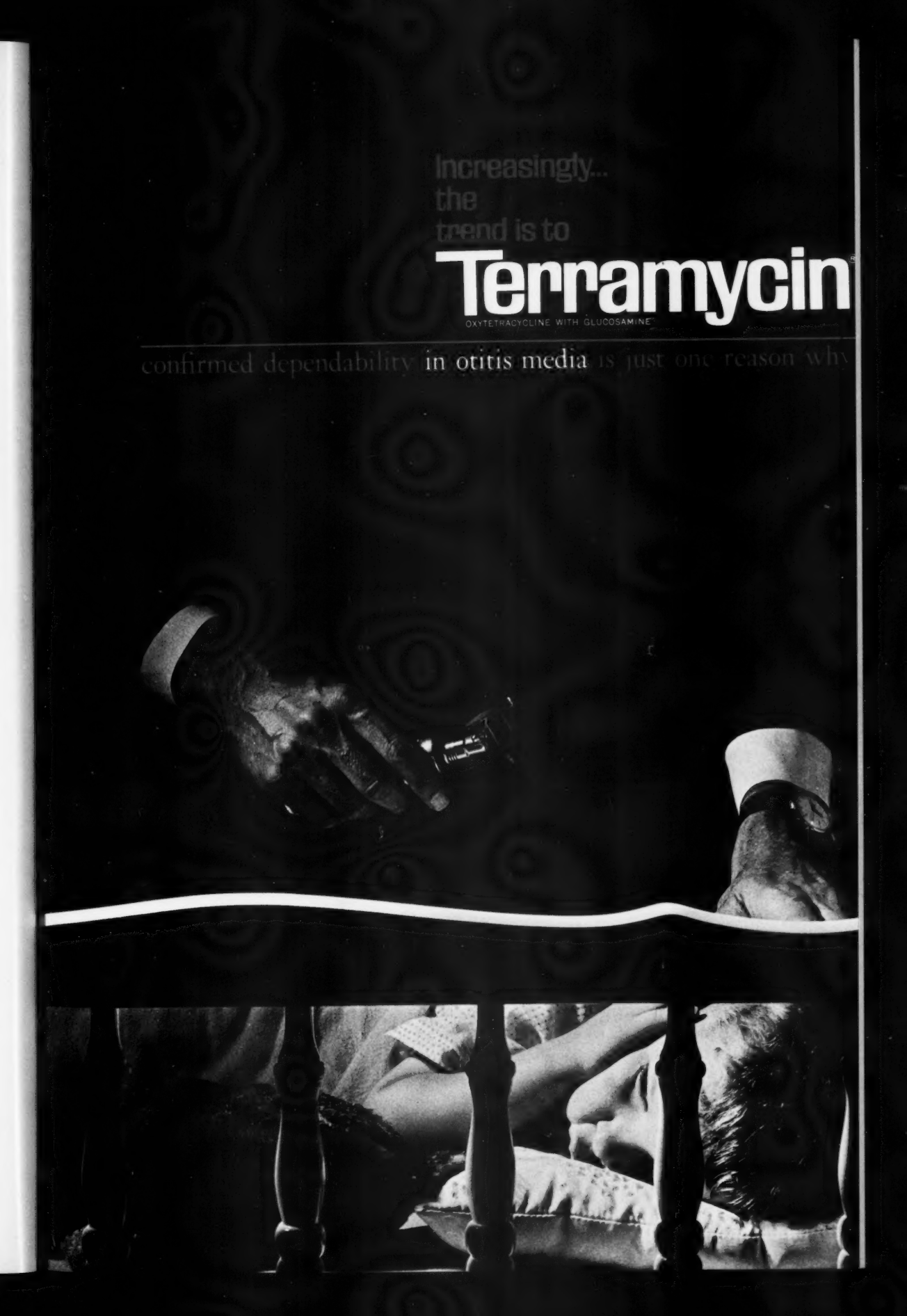
The aim of this book is to present current pharmacologic knowledge with particular reference to principles and concepts. It is intended for medical students and practitioners. Essential facts about important drugs are included, but repetitious discussion of compounds having little practical or theoretical importance is omitted.

AIDS TO PHYSIOLOGY, ed. 5, E. T. Waters, London: Baillière, Tindall and Cox, 1961. The Williams & Wilkins Co., Baltimore, exclusive U. S. agents.

This compact little volume, which belongs in The Students' Aids Series, is designed to supplement lectures and textbooks. Its purpose is to present the subject in such a way that the reader will be able to select and apply to the greatest advantage the information he has previously assimilated or is currently receiving in his studies.

PSYCHOSOMATIC ASPECTS OF PEDIATRICS; Study Group of the Society for Psychosomatic Research held at The Royal College of Physicians. Edited by Ronald MacKeith, M.D., and Joseph Sandler, M.D. New York: Pergamon Press, 1961.

The meetings reported in these proceedings were planned primarily to provide pediatricians with an opportunity for discussion of clinical problems; to tell them something of current psychological and psychopathological theories; to discuss some philosophical aspects of the idea of causation in this field; and to unite the clinical, psychological, and philosophical aspects in a session on the planning of research. Both the psychosocial approach and the physical approach are necessary for a doctor who tries to be as efficient and as helpful to his patients as possible.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confirmed dependability in otitis media is just one reason why

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*Jacques, A. A., and Fuchs, V. H.: J. Louisiana M. Soc. 113:200, May, 1961.

Maryland
SOCIETY OF PATHOLOGISTS INC.
EDWARD C. MCGARRY, M.D., *President* MANNING W. ALDEN, M.D., *Secretary*
Annapolis, Md.

PERORAL SMALL BOWEL BIOPSY

SIGNIFICANT PROGRESS has been made recently in our understanding of the pathology of intestinal lesions. Special devices are now available which secure biopsy specimens of human small intestines free of postmortem autolysis and surgical trauma.

The biopsy technique has been extensively used. It is safe and convenient, and causes minimal discomfort to the patients. Complications have been extremely rare and generally not serious. Theoretically, the possibility of transmitting viral hepatitis exists. Some workers prefer, therefore, an instrument which can be autoclaved.

While procurement of the specimens has become relatively simple, interpretation of the results may be difficult because of the inherent complexities in evaluating such tissues. The beginner, particularly, is inclined to overdiagnose and to be unduly impressed with various artifacts. The intestinal mucosa is an organ in the morphologic sense and functions as a unit in which all parts interact and are affected in disease states. Disturbances affecting the epithelium are reflected in the structure and composition of the tunica. The villous architecture and measurements of the length of its epithelial lining have received most attention. However, interpretation of histologic findings is greatly facilitated if all components—the villous and non-villous portion of the mucosa, the epithelial lining of crypts and villi, and the tunica propria—are equally considered.

Numerous publications during recent years have delineated the place of peroral mucosal biopsies. The technique has found its most important application in differentiating sprue from other diarrheal states. In sprue the morphologic alterations cover a spectrum of changes, the histologic severity of which does not entirely coincide with the clinical picture. The findings range from severe mucosal atrophy with disappearance of the villous pattern to a slight chronic enteritis with some blunting and fusion of villi. Characteristically, there is an increased number of inflammatory cells in the tunica propria, together with a proteinaceous precipitate. These are associated with changes in the epithelial lining. At the height of the clinical disease, epithelial degeneration is more pronounced and the cuticular brush border is severely affected. During relapse this border is reconstituted, although the basic tissue alteration remains unchanged in most instances. The several types of sprue show a similar histologic picture; however, this similarity of tissue response does not imply identity of etiology.

Mucosal biopsy has materially facilitated the diagnosis of intestinal lipodystrophy (Whipple's disease) and has made significant contributions to our understanding of enteric infections, of the effects of radiomimetic drugs, and of nutritional and environmental factors on the bowel. Although of recent origin, the technique of peroral intestinal biopsy is firmly established and can be considered an integral part of the diagnostic work-up.

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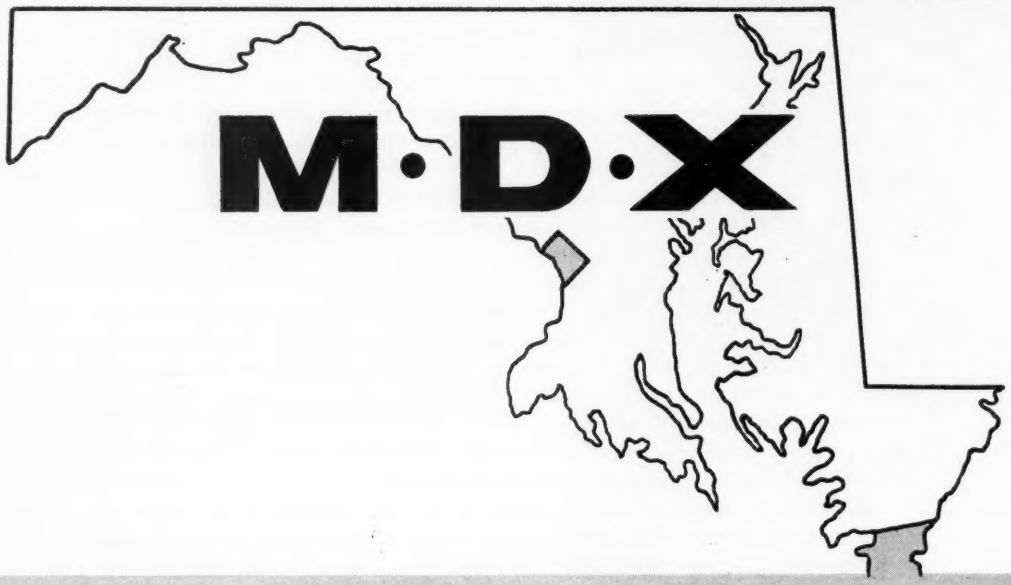

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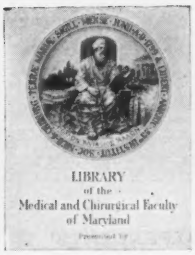

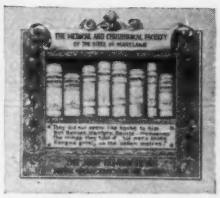

Library

George L. Yashur, *Librarian*

"Books shall be thy companions; bookcases and shelves, thy pleasure-nooks and gardens." *Ibn Tibbon*

Fifteener Fever

IT IS AN INSIDIOUS malady. The prognosis is hopeless long before the patient is aware of the symptoms. The symptom complex may vary somewhat, but it usually includes a kind of exhilarating intoxication, a mental restlessness, a look of preoccupation. Medical science has long been baffled by the disease and has, in fact, given up the search for a cure. There are those who secretly claim that a cure would be undesirable. It usually attacks the mature, educated, sensitive adult.

The term *fifteener* is traced to the year 1830, when it appeared in a journal article to describe a book printed in the fifteenth century. The commoner designations are "incunabulum" or "cradle book." It is not difficult to understand bibliophilism. Books are wonderful creations, and the old advertisement was correct when it stated that "the more you get, the more you want." A preoccupation (or obsession) with rare books and incunabula is a forgivable fault. They deserve respect and tender loving care. Paradoxically, those afflicted with this "fever" are the healthier for it.

The faculty library's collection of fifteeners cannot compete with those at the National Library of Medicine, the New York Academy of Medicine, or the Boston Medical Library; but we are proud of the ones we have. The H. P. Kraus Co. Catalogue XXI amplifies the obvious when it states that "rare books always keep their value in a civilized world."

1. Gilles de Corbeil, 1140? - 1224? *De pulsibus.* Padua, 1484.
2. Gilles de Corbeil. *De urinis et pulsibus.* Venice, 1494?
3. Petrus de Abano, 1250 - 1320. *Incipit excellentissimi medici.* Leipzig, 1498. (A treatise on poisons.)
4. Vita Sti. Brunonis. 1475- (A life of the founder of the Carthusian Order of hermits.)

NATION'S OLDEST ESSAY CONTEST

The Trustees of America's oldest medical essay contest, the Caleb Fiske Prize of the Rhode Island Medical Society, announce two subjects for this year's dissertation. It is open to any doctor of medicine in the nation, and a cash prize of $500 will be awarded. The subjects chosen are: "RECENT ADVANCES IN THE TREATMENT OF MALIGNANT DISEASE," and "CURRENT STATUS OF CARDIAC SURGERY." An essay on either subject must be typewritten, double spaced, and should not exceed ten thousand words. Essays must be submitted by December 11 to the Secretary, Fiske Fund, Rhode Island Medical Society, 106 Francis Street, Providence 3, Rhode Island.

MILITARY DEPENDENTS' MEDICAL CARE

The following letter has been received in the Faculty Office for the information of physicians. It concerns medical care for dependents of military personnel who are being retained on active duty beyond their expected discharge date.

The retention of certain servicemen beyond their normal date of expiration of active duty tours is essential in order that the augmentation of the Uniformed Services, called for by the President, can be attained. Implementation poses many problems. Among them is the valid identification of the extendees' dependents who will remain eligible for certain benefits while their sponsors remain on active duty.

The extension of tours of duty may result in some dependents being without a valid Identification Card for some time. The basis of identification of dependents is, as you know, the Uniformed Services Identification and Privilege Card (DD Form 1173). Each card carries an expiration date of eligibility. This date, in the case of dependents of noncareer personnel, is the same as the expected expiration date of the sponsor's tour of active duty.

In the past, the "expiration date" on the ID Card has been the governing factor in determining that eligibility still exists. Since the involuntary extension of the tours of duty of many servicemen is effective almost immediately, the probability exists that some still-eligible dependent wives and children may apply for civilian medical care to which they are still entitled. They may not, however, have in their possession the required proof of their eligibility.

No change is contemplated in the provision of our contract which states that claims may not be processed for payment until the dependents have proven their eligibility to receive care. Service personnel are being advised that it is their responsibility to take necessary action to "up-date" the evidence of dependents eligibility.

It is most probable, however, that some dependents will be in need of authorized medical care from civilian sources prior to the time this action has been completed. In such cases, the dependent has been instructed to explain the situation to the physician and hospital authorities. They have been advised to present, if available, some tangible evidence such as allotment checks, official orders, directives, or personal letters which state the pertinent facts to the physician or hospital to help support the dependent's claim of continued eligibility.

This office is not empowered to broaden the "good faith" aspect of our contract. The number of dependents temporarily "unidentified" who require medical benefits will not be large.

In view of the situation at hand, I would appreciate your assistance in encouraging physicians and hospitals to exercise patience and understanding during the next several months when their services are requested by dependents of these extendees.

I must emphasize, however, that no claims may be processed for payment

STATE OF MARYLAND

DEPARTMENT OF MENTAL HYGIENE

Isadore Tuerk, M.D., Commissioner

Kurt Gorwitz, Statistics Director

The Price Is Right

MARYLAND'S TAXPAYERS, like conscientious citizens everywhere, are becoming increasingly concerned about the rising cost of maintaining their governmental services. Since they must ultimately pay for these expenditures, these people naturally feel that they have a right to know whether these funds are wisely and properly spent.

Discharge figures are one of the best indications of a hospital's ability to treat its patients and return them to the community sufficiently well to assume a positive and satisfying role in society. In 1952 Maryland's four psychiatric hospitals discharged or transferred out 1,437 patients. In 1960 the discharge figure alone had increased to 3,767. An additional seventeen patients were transferred to institutions outside our system, while 169 were transferred between our hospitals. This breakdown had previously not been available. We have thus increased our discharges during this nine year period by an annual average of more than 15 per cent.

General fund expenditures for these hospitals increased from $8,189,629 in 1952 to $15,895,372 in 1960. This represents a rise of less than ten per cent per year. The hospitals thus spent $5,699 in 1952 for every patient they discharged or transferred out. By 1960 this figure had dropped to $4,058, or $4,201, if the transfers are omitted. This is actually a decline of more than 25 per cent. It is most remarkable that this cost figure has decreased steadily since 1952 despite the constantly rising prices of almost all goods or services.

The above data clearly indicate that these rising expenditures have helped to provide a brighter and more hopeful future for many of Maryland's citizens. It is our responsibility to continue the progress made in recent years.

unless the dependent has provided a valid DD Form 1173 or a statement of eligibility as required by our contract and as outlined in ODMC Letter No. 1-60.

This information is being furnished to all contractors and to the editors of leading medical and hospital journals. We would appreciate it if you could publish a copy of this letter, or an extract of the information in the next copy of your Medical Society journal or any other news media which is circulated to your membership.

/s/
W. D. GRAHAM
Brigadier General, MC, USA
Executive Director

The Heart Page

J. Michael Criley, M.D.—*Editor*

A SERVICE OF
THE HEART ASSOCIATION OF MARYLAND

UNILATERAL RENAL DISEASE

A Cause of Hypertension

Robert A. Johnston Jr., M.D.

HYPERTENSION SHOULD be interpreted as a sign rather than as a disease, even though reduction of the elevated blood pressure usually is the immediate purpose of therapy. All hypertensive patients deserve a diagnostic investigation in the hope that a "curable" type of hypertension will be found. Granted that "curable" hypertension; i.e. coarctation of the aorta, Cushing's disease, primary aldosteronism, and pheochromocytoma, is excluded as a diagnostic possibility, unilateral renal disease must be considered as a cause of hypertension.

There is no specific pattern to help differentiate hypertension secondary to unilateral renal disease from the essential idiopathic variety. Clues may be obtained from the history and physical examination which make the diagnosis highly suspect and prompt further investigative procedures. Hypertension in anyone under 30 years suggests congenital renal artery stenosis. A hypertensive person who gives a history of recurrent same-sided pyelonephritis makes the symptomatic kidney suspect. An individual who becomes hypertensive after an injury to the abdomen or flank areas may have a renal infarction. Similarly, a person who develops hypertension subsequent to an episode of unexplained abdominal pain, particularly associated with hematuria, may also have had a renal infarction. Elderly individuals who suddenly develop hypertension may have an atherosclerotic placque reducing blood flow to a kidney.

Physical findings are helpful only when a bruit is heard over a renal artery. Severe atherosclerosis increases the possibility of placque formation in or at the ostia of a renal artery. The severity of the hypertension is not helpful, because the hypertension produced by a unilateral renal lesion may be mild or malignant and may respond favorably to simple measures or be relatively resistant to vigorous antihypertensive therapy.

Routine laboratory studies have not been helpful in establishing the diagnosis of unilateral renal hypertension. Urinalysis may be normal, there being no proteins, no concentrating defect, nor cellular elements. Anemia is usually not present. There may be evidence of nitrogen retention, but if moderate, it is in itself no contraindication to surgery; many kidneys are saved from nephrectomy by arterial repair or by renal artery bypass procedures. Generally, serum electrolytes are within normal limits.

Intravenous pyelography is the most useful of the simple procedures. Kidneys which differ by two centimeters or more in either vertical or horizontal axes prompt further investigation. Depressed cortical areas may have resulted from renal infarction. Unfortunately, however, intravenous pyelography may reveal no abnormality;

yet unilateral renal disease may be present. For this reason, if the pyelogram is abnormal or if the diagnosis of unilateral renal hypertension is suspect from the history, further diagnostic investigation is indicated. In our hands differential renal function studies obtained by simultaneous ureteral catheterization have been most valuable. They have been used as the definitive test in diagnosing unilateral renal hypertension. Classically the urine volume from the affected side is reduced 50 per cent or more; sodium concentration is decreasesd by at least 15 per cent; and the index of the tubular water handling, whether it is creatinine, inulin, or para amino hippurate concentration, is increased. Many variations occur, however, particularly when there is a pyelonephretic or a segmental lesion; but it is beyond the scope of this article to discuss these differences. It is important to be aware that this procedure is worthless unless performed accurately and with great care.

Renal aortography has been used by others as a definitive diagnostic procedure for unilateral renal hypertension. We have not relied upon this as a diagnostic tool because normal aortograms have been visualized and nephrectomy has "cured" the hypertension. Conversely, occlusive lesions have been visualized across which no blood pressure gradient was found at surgery. Also, nephrectomy has been performed on the basis of a lesion visualized at aortography but with no subsequent improvement in the hypertension. To my knowledge, a significant reduction in blood pressure has always occurred after nephrectomy when the simultaneous differential renal function study was unequivocally positive. Renal aortography is helpful to the vascular surgeon in locating an occlusive lesion. For this reason it is done routinely in all patients with positive differential renal function studies.

In summary, any hypertensive patient may have unilateral renal disease as the cause of his hypertension. Certain historical and physical findings make the diagnosis suspect. Intravenous pyelography is the most useful screening procedure, and simultaneous differential renal function studies are the most useful in making definitive diagnosis.

NEW AIR-AMBULANCE SERVICE ESTABLISHED

A new approach to the problem of long distance transportation of the sick or injured is being offered by Special Air Services, Inc., of Alexandria, Virginia. After extensive testing, the firm is placing in service a twin-engine, 200 mile-per-hour aircraft which has been specially designed for use as an air-ambulance.

Air ambulance service itself is not an entirely new concept since patients have been transported by air in the past, but conventional aircraft are not usually equipped for handling stretcher-borne patients with such facility. Special Air Services' aircraft, however, has been specifically modified to accommodate as many as two such patients simultaneously. An extremely wide door has been installed for easy loading of stretcher cases. Another special feature is the oxygen supply and equipment capable of resuscitation, demand inhalation, or aspiration. Two independent 115 volt electrical systems have been installed to operate special equipment, such as portable iron lungs. Ample space is provided in the passenger compartment for the doctor or nurse and several members of the family so that the patients can receive constant attention.

For patients who must be moved carefully and quickly, air-ambulance service offers many advantages which cannot be found in any other type of long-distance transportation. Since all flights are privately arranged, the plane can leave at any time of the day or night and fly at an altitude selected by the doctor. To eliminate delays, it is fully equipped for all weather flying. Safety while in the air is assured by the twin-engine reliability of the plane and the experience of the Airline Transport Rated pilots who are in command on every flight.

Special Air Services flights serve over 6000 airports in the United States and Canada. Arrangements for the flights are made by contacting Special Air Services, Inc., P. O. Box 305, Alexandria, Virginia, or calling King 9-3146.

MARYLAND TUBERCULOSIS ASSOCIATION

Christmas Seal Agency for State of Maryland

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RESEARCH PROJECTS FOR 1961-1962

RESEARCH CONTINUES to be a primary force in the tuberculosis control programs of the National Tuberculosis Association and its medical branch, the American Thoracic Society. The Maryland Tuberculosis Association annually contributes five per cent of its Christmas Seal revenue to the national organization for application to research projects. In addition, the Maryland association maintains its own fund for research. Contributions are made to this fund by affiliated associations throughout the state to support projects approved by the NTA-ATS but for which no other funds are available. Further information about the fund for research may be obtained from Frank T. Jones, Executive Director of the Maryland Tuberculosis Association, Baltimore 2, Maryland.

Nationally, through the NTA-ATS Fellowship Program, twenty-six young investigators are in training at twenty-two medical centers. Financial support of individual fellows is shared with sixteen tuberculosis associations in eleven states. Fourteen fellows are starting their training in pulmonary diseases this year; twelve are continuing their fellowships. They are:

EDWARD LIVINGSTON TRUDEAU FELLOWS

Sanford Chodosh, M.D., instructor in medicine at Tufts University School of Medicine, Boston, is continuing his work with Dr. Maurice S. Segal in the Lung Station of the Boston City Hospital. Primarily a clinician, he is also carrying on studies in tuberculosis and bronchitis and on the pigeon as a vector of cryptococcosis.

David W. Cugell, M.D., Potts Memorial-Edward Livingston Trudeau Fellow, now in the fourth year, is assistant professor of medicine at the Northwestern University School of Medicine, Chicago, and chief of staff, Medical Chest Service of the Cook County Hospital. He also carries on an active program of research in ultrasound, electromyography, and audio frequency methods of physical diagnosis and in diffusion capacity in certain lung diseases.

Roger M. Des Prez, M.D., continues his fellowship as an instructor in medicine at Cornell University Medical College, New York, under Dr. Carl Muschenheim. He is physician to outpatients and cares for patients in New York Hospital. He is carrying on studies on the antigen-antibody reaction.

RESEARCH FELLOWS

Marvin J. Allison, Ph.D., is a research associate in the Henry Phipps Institute of the University of Pennsylvania, Philadelphia, continuing his work under Dr. Max B. Lurie. His field is experimental pathology with special interest in the relationship between inborn constitution and resistance to infections.

David M. Carlberg, Ph.D., the Harold Trimble Memorial Fellow, is a research assistant to Dr. G. J. Jann in the department of bacteriology at the University of California at Los Angeles. On his second year of fellowship, he is studying the basic components of the tubercle bacillus and other mycobacteria by bacteriophage techniques.

Clarence W. Jordahl, Jr., M.D., who previously held a teaching fellowship, is now starting a year of training in investigative techniques in pulmonary function with Dr. Robert E. Forster at the Graduate School of the University of Pennsylvania.

Harold Levine, M.D., is in his second year of fellowship at Northwestern University School of Medicine, Chicago, under Dr. Cugell. He is also

an assistant attending physician at the Cook County Hospital. His research concerns pulmonary diffusion and cardiac outflow in various diseases.

John M. Moses, M.D., an instructor in the department of medicine at Western Reserve University, Cleveland, is starting a fellowship to work under Dr. Robert H. Ebert on the relationship of tuberculin fever to tuberculin sensitivity.

David Y. Rosenzweig, M.D., starts his research fellowship at the Webb Institute for Medical Research of the University of Colorado School of Medicine, Denver. He will be working under Dr. Giles Filley on physiologic studies of isolated lung preparations and on a long-term study of emphysema patients.

Paul M. Stevens, M.D., is the new C. Hartwell Cocke Fellow, working under Dr. John H. Knowles at the Massachusetts General Hospital, Boston. He will be engaged in research studies in the pulmonary physiology laboratory of that hospital, and he will follow patients in the wards and in the chest clinic.

John M. Tyler, M.D., instructor in medicine at Tulane University School of Medicine, New Orleans, starts his investigation work under Dr. M. M. Ziskind. He plans to study lung function in families with inherited connective tissue disorders.

TEACHING TRAINEES

Alfred A. Azzoni, M.D., is a thoracic surgical resident at the Columbia-Presbyterian Medical Center, New York, and chief resident of the Surgical Services under Dr. Robert H. Wylie. He is continuing his training in thoracic surgery in both clinical and laboratory phases.

Donna O'Hare Brayton, M.D., assistant in pediatrics at the New York University School of Medicine, New York, is starting a year of teaching under Dr. Saul Krugman and of clinical investigation in the pediatric chest clinic at Bellevue Hospital.

Harry A. Edwards, Jr., M.D., resident in medicine at the Jackson Memorial Hospital in Miami, will be teaching under Dr. C. F. Tate at the University of Miami School of Medicine and carrying on a follow-up study of operated and non-operated cases of bronchogenic carcinoma.

Richard H. Evans, M.D., resident in surgery at the University of Chicago, is being trained in pediatric cardiopulmonary surgery under Dr. Peter Moulder.

Ronald Feldman, M.D., assistant instructor in medicine at the Albert Einstein College of Medicine, the Bronx, New York, is starting his traineeship under Dr. M. Henry Williams at the Bronx Municipal Hospital. He will work in the wards and in the pulmonary function laboratory.

Robert I. Fraser, M.D., medical resident at the Pennsylvania Hospital in Philadelphia, is carrying out his ward and outpatient duties under Dr. E. Wayne Marshall and assisting in teaching medical students and nurses.

Rafik Hubaytar, M.D., chief resident on the Chest Service at Bellevue Hospital, Columbia University Division, New York, will complete his training in pulmonary diseases under Dr. John H. McClement. He will later return to Lebanon and the American University of Beirut to teach.

Donald R. Kahn, M.D., having completed his four years of surgical residency at University Hospital, Ann Arbor, Michigan, is continuing to work under Dr. Cameron Haight on the problem of lung transplantation.

Linda Leilop, M.D., assistant instructor, department of medicine, Pulmonary Disease Section, State University of New York Downstate Medical Center, Brooklyn, New York, continues her fellowship under Dr. Harold A. Lyons. She teaches medical students and works on clinical problems involving steroid therapy and sputum examination.

Donald J. Massaro, M.D., Pulmonary Fellow of the Georgetown Medical School, Washington, D. C., is continuing his training in teaching and clinical research under Dr. Sol Katz. He is working in the wards and in the pulmonary function laboratory on problems involving emphysema.

Raymond F. Medler, M.D., instructor in medicine, State University of New York Downstate Medical Center, Brooklyn, New York, and assistant visiting physician at Kings County Hospital, continues his fellowship under Dr. Harold A. Lyons with charge of tuberculosis beds and clinical research in therapy, preoperative evaluation, and pleural biopsies.

Eleanor S. Nash, M.D., having completed a year as chief resident on the Chest Service, Bellevue Hospital, New York, under Dr. John H. Mc-

(*Continued on page* 654)

BALTIMORE CITY HEALTH DEPARTMENT

HUNTINGTON WILLIAMS, M.D.
COMMISSIONER

P. O. Box 1877 Baltimore 3, Md. Plaza 2-2000: Extension 307

Learn To Do Your Part In The Prevention Of Disease

STAFF CHANGES

Gulius D'Ambrogi—Milk Control

MR. GULIUS D'AMBROGI was recently promoted to the post of Director of the City Health Department's Bureau of Milk Control. Mr. D'Ambrogi was first employed by the City Health Department in 1940 as a senior milk plant inspector. Two years later he was appointed chief of the Division of Milk Plant Inspection, which position he has held continuously except for a period of five years when he was employed by private industry.

Mr. D'Ambrogi attended the public schools in Baltimore and received a Bachelor of Science degree from Loyola College in 1935. He attended the University of Maryland and in 1937 was awarded the Master of Science degree in Dairy Technology. Mr. D'Ambrogi is a past president of the Maryland-District of Columbia Dairy Technology Society. He is co-author of Bulletin 413, "Some Factors Affecting the Accuracy of the Babcock Test on Composite Samples of Milk," published by the University of Maryland Agricultural Experiment Station. This bulletin became the basis for the Maryland milk testing law.

Mrs. Grace Gunts—Social Worker

MRS. GRACE GUNTS, a social worker, was assigned this summer to help tuberculosis patients and their families in the eastern section of the city. This work has been made possible through the generous assistance of the Maryland Tuberculosis Association, which provided the necessary funds for her employment.

Mrs. Gunts, a graduate of Gettysburg College with additional study at Pennsylvania State College and the Frostburg State Teachers College, will have her headquarters in the chest clinic in the Eastern Health District building, 620 North Caroline Street. Her work will be similar to that of Mrs. Anne Reed, who has been in the Druid Health District building since 1956. Mrs. Reed, whose position was created as a demonstration project by the Maryland Tuberculosis Association in 1946, has clearly shown that a social worker is not only important but necessary in combating the many social and personal problems that a tuberculosis patient has in addition to his physical disability.

Mr. Kimmett Topfer—Civil Defense

ON AUGUST 14 Mr. Kimmett Topfer was appointed full-time health administrator in the City Health Department's Civil Defense Health Service. This position has been vacant since the untimely death of Mr. Robert M. Keller.

Before his appointment Mr. Topfer served for twenty-three years in the Medical Service of the U. S. Army. A native of Baltimore, he joined the Army in 1936, at the age of 18. His assignments in peace and war have provided an excellent framework for his civil defense duties. He was first aid man for the Division Medical Detachment at Oahu, Hawaii, and supply and motor sergeant and sergeant major with the Army Medical Laboratories at Fort Sam Houston, Texas, and in the Solomon Islands. Upon promotion to second lieutenant in 1945, he was assigned to the Hospital Training Unit at Camp Edwards, Massachusetts. In June 1945 he was transferred to Madigan General Hospital, Tacoma, Washington, where he became director of dietetics for approximately three thousand patients.

Prior to the Korean conflict Mr. Topfer was a

(*Continued on page* 654)

Baltimore Area Council on Alcoholism

(Successor to Maryland Society on Alcoholism)

22 East 25th Street, Baltimore 18, Maryland TU 9-3553

INSTRUCTION IN ALCOHOLISM IN NURSING EDUCATION

TWO MONTHS AGO this column reviewed the instruction given in alcoholism to medical students in our state. This month we will discuss a survey on the training of nurses qualified for registration (RN), based upon information from fourteen of the twenty-one such schools in the state.

The *hours* indicated in the curriculum are estimates and may vary from one group of students to another depending upon the clinical material available when they are on the wards. Table I shows the number of hours given to various types of instruction. Preclinical teaching covers lectures in physiology, pharmacology, or sociology. Clinical teaching covers patient conferences or demonstrations and lectures on disease.

The State Department of Health makes available a number of excellent films, which three of the schools used. Only two schools either had members of AA address the class or had the class attend an AA meeting. All but one school employed the emergency room for training in alcoholism. The frequency that alcoholics are seen in the hospital is indicated under "alcoholic patients."

Table 1
HOURS OF INSTRUCTION

	Preclin.	*Clin.*	*Films*	*AA*	*Emergency Room*	*Alcoholic Patients*	*Psychiatric Affiliation*
Baltimore Hospitals							
Church Home	2	6	no	no	yes	frequent	slight
Hopkins	2	2	no	optional	yes	frequent	slight
Lutheran	0	0	no	no	2	few	intense
Md. General	0	0	no	no	yes	rare	moderate
Mercy	1	5	2	3	yes	moderate	?
Provident	2	2	no	no	yes	frequent	intense
St. Agnes	0	0	no	no	1	few	slight
St. Joseph	1	2	1	2	yes	moderate	slight
Univ. Md.	2	3	no	no	2	frequent	moderate
Other Cities							
Columbia Union							
Takoma Park	2	4	1	no	yes	rare	slight
Memorial							
Easton	0	1	no	no	yes	rare	slight
Frederick							
Memorial	2	1	no	no	yes	rare	moderate
Peninsula Gen.							
Salisbury	0	1	no	no	1	moderate	moderate
St. Joseph							
Emmitsburg	0	2	no	no	no	no	slight

Many schools teach psychiatric nursing at an affiliated hospital, and only a word estimate of the instruction in alcoholism could be made. This is noted under the heading "Psychiatric Affiliation."

RESULTS: Most Baltimore schools of nursing recognized alcoholism as an important part of the curriculum and devoted training time to this subject. Those having affiliation with a psychiatric hospital with instruction in alcoholism (state hospitals) generally had less such teaching in the nursing school. The metropolitan location was reflected in numbers of alcoholics in the hospital used for training. The average school outside of Baltimore did not emphasize alcoholism to the same degree. The occurrence of alcoholics in their patients and the attention to alcoholism in their psychiatric affiliates was diminished.

DISCUSSION: Most metropolitan schools do well in teaching about alcoholism in keeping with their need. The schools outside the metropolitan area, however, do not teach this subject, for it does not seem to effect them to a significant degree. In a study of the treatment of alcoholics in general medical wards,* it was found that the attitude of nursing personnel was the single biggest impediment to the institution of this program. Education of the personnel proved most helpful, for with more experience and information on alcoholism the same personnel became enthusiastic allies for the success of the program.

Education on alcoholism for the nurses of Maryland varies. About one-fourth of the schools utilize many different techniques of instruction and have ample alcoholics among their patients to instruct their students adequately. Several schools affiliate with the state psychiatric hospitals and get excellent training. Non-metropolitan schools generally get inadequate instruction in this field. Certainly extension of the better programs is indicated, for what the student is taught in 1961 reflects attitudes of hospital nurses in the immediate and distant future. Alcoholism is more prevalent in hospitalized patients than is diabetes and thus is an important aspect of nursing.

Frank L. Iber, M.D.

*A study on the nonsegregated hospitalization of alcoholic patients in a general hospital. M. Berke, J. D. Gordon, R. I. Levy and C. B. Perrow. Hospital Momograph Series No. 7 American Hospital Association Chicago 11, Illinois.

MARYLAND TUBERCULOSIS ASSOCIATION

(*Continued from page* 651)

Clement, has started another year of fellowship as a member of the Cardiopulmonary Research Unit (Columbia University Division).

Jourdan A. Roane, M.D., resident in pediatrics, University of Oklahoma Medical Center, Oklahoma City, is starting his first year of traineeship and second year of residency under Dr. H. D. Riley, Jr. In addition to teaching and ward duties, he is studying fungus infections involving children's lungs.

Murray Sachs, M.D., previously Teaching Fellow in Medicine at the University of Pittsburgh, is taking a year of traineeship under Dr. Sol Katz at the Mt. Alto Veterans Administration Hospital, Washington, D. C., to be spent in pulmonary physiology laboratory and chest wards.

Donald W. Smith, M.D., Fellow in Chest Diseases, University of California Medical Center, San Francisco, is starting his traineeship under Dr. Charles T. Carman. He will teach, prepare weekly chest conferences, cover ward rounds, and follow outpatients with chronic pulmonary disease.

Fight TB

Use Christmas Seals

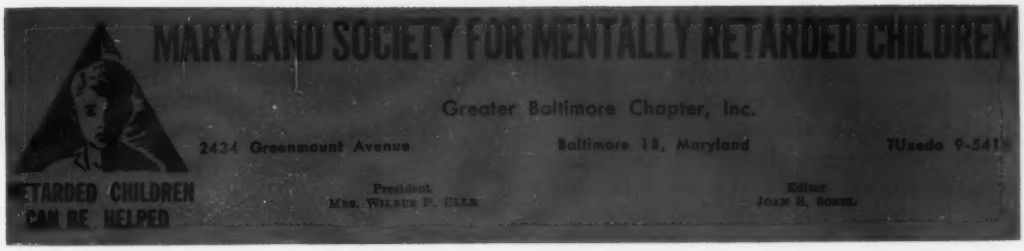
BALTIMORE CITY HEALTH DEPARTMENT

(*Continued from page* 652)

food service supervisor with the 80th Medical Group in Seoul. Later he served in Japan at Osaka Army Hospital. He has been registrar at the U. S. Army Hospital at Fort Lee, Virginia, and was last assigned to the Army Hospital at Aberdeen Proving Ground, Maryland. He retired in October 1960 with the rank of Major. Mr. Topfer has twice been awarded the Army Commendation Medal: first, for the evacuation of Korean casualties and more recently, for his organization of hospital procedures at Aberdeen.

Huntington Williams, M.D.

Commissioner of Health



A Day at Camp Adventure

Joan B. Sobel

THE FROST IS ON the pumpkin. It is the season for sitting around the hearth as the warm fire glows. It is the time for fond reminiscence. One of my happiest recollections of the summer gone by is the twenty-four hours I spent at Camp Adventure. High up in the rolling hills surrounding Conowingo Dam some fifty teenagers and young adults spent ten days in a camp operated by the Maryland Society for Mentally Retarded Children, Greater Baltimore Chapter.

The campers were students from the public school system (special classes for the educable retarded and schools for the trainable), from the privately operated School of the Chimes, from the Chimes Activity Center (for those 18 years and older), from the Special School of St. Francis, sponsored by the Franciscan Sisters, and from the Sheltered Workshop of the Maryland Society. Many of the youngsters from the Baltimore area were not strangers to one another. They had met in the Scouts, in the gym classes, or at teenage dances, all of which are part of the extensive program of the Recreation Committee of the Society.

In the friendly relaxed camp atmosphere these individuals quickly made friends with the ten Rosewood State Training School campers. It has become a tradition with the Society to offer full camperships ($75) to children from the Institution.

The Director of the camp is Mrs. Ruth Wisotzkey, a trained recreation leader and principal of the Ridge School (a Baltimore County school for trainables). She has assembled a devoted and skilled staff of twelve counselors and a registered nurse.

Since many retarded youngsters have physical handicaps and chronic illnesses, the medical care at camp is a vital part of the total program. A medical form is required of each camper. Mrs. Norma Smith, the nurse, takes personal responsibility for administering the medications, which some of the retarded people need daily. She watches closely those who have congenital heart defects, and she works with the staff in tailoring the camp activities to their limitations. In case of illness a local physician is called upon, and if necessary, the patient is cared for in the spacious dispensary. Safety rules are never relaxed; as a result accidents are rare.

The magnificent facilities and grounds of Camp Adventure permitted a wide range of activities. There were hikes through the picturesque countryside, fishing in a lake, and games outdoors or in the spacious activity building. The auditorium has a well equipped arts-and-crafts center, which was put to good use by the campers. Horseback riding was popular with some of the young adults, and swimming was a universal favorite. The two large pools offered plenty of room for water games and play, and three daily swimming periods gave ample opportunity for individual instruction. The campers were grouped according to their swimming ability and taught by the Red Cross methods. Several youngsters earned Red Cross beginners and intermediate certificates. Evening was time for more fun in a large threater-barn: games, plays, skits, dancing.

The day ended on the patio near the swimming pools, where Mrs. Wisotzkey conducted a brief vesper service. These people, like normal ones, cannot live by bread alone.

The success of this camp program can be measured in so many ways, but perhaps the best indication is the happy faces of the participants.

RETARDED CHILDREN CAN BE HELPED is the motto of the National Association for Retarded Children (of which the local group is an affiliate). In camp, as in our other programs, these words are translated into action, and the retarded them-

selves are proving the soundness of our philosophy. Like many other first-time visitors to this camp, I was amazed at the range of activities in which even a severely mentally handicapped person can participate and acquire skills.

The Society works closely with existing community agencies. It has been our policy not to enter the medical and health field. Referrals are made to private physicians or to local hospitals. The Society stands ready to help the professional by acquainting him with the existing resources. These resources, through the efforts of many groups and individuals, are expanding rapidly to fill the still existing gaps for the 3 per cent of our school age population which is retarded. The Maryland Society, through its professional staff and many volunteers, keeps abreast of the developments and transmits the findings to interested physicians, educators, social workers and parents.

The Maryland Society is now twelve years old. Sometimes, despite our successes, we feel so much has yet to be done for the retarded citizen. In the months to come we will endeavor to present on this page other spotlights on what is now and what is yet to be in the area of mental retardation.

Newly Licensed Physicians

(*Continued from page 637*)

Fall, Daniel J.
Faw, Bernadine C.
Ferlic, Donald C.
Fink, Robert A.
Fisher, Edward G.
Fleming, W. E., Jr.
Font-Zelinski, V.
Forbes, R. K.
Franks, Everlee G.
Freinek, W. R.
Fromm, I. W.
Gale, Robert H.
Garner, LeRoy B.
Geary, Paul, Jr.
Gladden, Major P.
Glass, Leonard W.
Gomez, Andres C.
Goodman, Jay S.
Grant, Q. A. F. R.
Green, Richard
Gursey-Owen, D.
Gutberlet, R. L.
Haghighat, Iraj
Helgason, Agust H.
Henck, Samuel H.
Heymann, R. L.
Hofkin, Gerald A.
Holz, Richard G.
Hooper, James L.
Hughes, D. W. O.
Hughes, R. P., Jr.
Hung, Kin Lincoln
Hutcheson, J. S.
Hutchins, G. M.
Immink, R. W.
Jabaley, M. F.
Jackson, Aaron G.
John, Richard E.
Johnson, James R.
Johnston, F. F., Jr.
Kamp, Martin
Kaplow, Sheppard
Kendrick, D. D.
Kfoury, Emile F.
Kim, Tai Hoon
Kime, Watson
Klein, Edmund
Knaak, C. T.
Knaack, Claire T.
Knight, McG. E.
Korol, Harold W.
Kotler, Everett G.
Krome, Ronald L.
Kronthal, Alfred
Lane, Rosemary B.
Laney, Cleatis E.
Lankford, P. W.
LaRose, A. F.
Layug, P. E.
Lee, Yu-Chen
Leiby, G. M., Jr.
Leventhal, M. S.
Levy, Bernard S.
Liddon, Sim Clark
Light, John Paul
Litrenta, D. E.
Lofft, John G.
Loyola-Oliva, P. M.
Luckey, V. M.
Ludicke, R. E.
Lyne, Everett D.
Mahoney, J. J.
Malina, Steven
Marsh, John R.
Marshall, R. M.
Matkovic, T.
McCarter, J. F.
McCutchan, J. H.
McGeoy, T. J.
McKnew, D. H., Jr.
Mehl, Roger Lee
Mendoza, A. G. de
Miller, G. A.
Mohr, D. P.
Monis, Benito
Morreels, C. L., Jr.
Morton, J. R.
Myerburg, R. J.
Neill, Catherine A.
Neims, Allan H.
Oldstone, M. B. A.
Olson, Clyde L.
Ortel, Rodney L.
Oster, Walter F.
O'Toole, W. F.
Ottenritter, L. A.
Ottley, Neville
Patterson, E. A.
Payne, John W.
Pazourek, L. J.
Pendergrast, D. H.
Perez-Mera, R. A.
Peterson, N. D.
Presser, Clifton C.
Quiambao, M. L.
Raif, Neil Charles
Reeder, P. A., Jr.
Reeves, John A.
Ridenour, D. E.
Ritchie, W. P., Jr.
Rossi, Mario B.
Sabatini, D. E.
Sarles, Richard M.
Schaefer, David L.
Schillaci, R. F.
Schulze, R. R.
Schwenk, W. G.
Sehgal, N. N.
Seymour, L. D.
Small, Marvin M.
Smith, Clifford
Smith, R. E.
Smith, Robert
Sonn, T. M.
Stephens, T. L., Jr.
Swarner, D. R.
Taavon, Homayoon
Tate, Wayne B.
Tilley, Larry G.
Thomas, H. M., 3d
Tolbert, Jesse C.
Tyler, Henry B.
Urban, G. E., Jr.
Vann, Nina C.
Vazques, L. R.
Vitek, Brantley P.
Walton, T. M., Jr.
Washington, A., 2d
Waters, Z. J., Jr.
Wending, A. W.
Whitelock, L., Jr.
Williams, J. C.
Wilson, H., 3d
Wisotzkey, H., Jr.
Wolpert, Arthur
Young, A. J.

MARYLAND ASSOCIATION OF MEDICAL ASSISTANTS

AAMA Can Be the Practicing Physician's Best Friend

E. Vincent Askey, M.D.*

A FEW MONTHS ago I attended an unusual meeting in Dallas. More than 450 women from 30 states took part in the fourth annual convention of the American Association of Medical Assistants.

If the name sounds unfamiliar, that is because the national group is less than 5 years old. But the meeting revealed a maturity and dedication rarely seen in such a young organization. Running simultaneously with sessions of the AAMA House of Delegates were postgraduate sessions on the scientific and nonscientific aspects of modern medical practice.

You might have recognized your own office employees among the registrants, for the AAMA consists of women employed by physicians as office nurses, medical secretaries, medical assistants, technologists, and office receptionists.

It was an eye-opening experience for me to discover that these women have organized in the last 20 years more than 300 state and local chapters in 30 states to further on-the-job self-improvement. Four years ago, 150 of these women met in Milwaukee, and, with the help of representatives of the AMA, state medical societies, and individual physician-advisors, they formed the national association. The following month the AMA House of Delegates formally commended the objectives of the AAMA.

The goals are to inspire members to render honest, loyal, and more efficient service to both the profession and the public, and to cooperate with the medical profession to improve public relations. Long-range goals include educational programs to help members become more efficient, and the establishment and expansion of training programs for medical assistants in junior high schools, colleges and business schools.

The AAMA has national headquarters in Chicago, and its national membership has soared to more than 9,000. State and county groups, along with the national organization, are assisted by the advice of physicians who are appointed by the AMA and the medical societies.

It was a surprise to me that many physicians discourage their employees from joining such an organization. Although the AAMA has demonstrated for 5 years its cooperation and devoted service to the medical profession, some doctors think that AAMA is just the first step towards organizing medical assistants into a union.

This is not true. I can personally assure you that the AAMA's constitution—drafted with the assistance of the AMA's legal staff—contains a clearly-stated clause that it will never affiliate with any union. Many members assured me at the Dallas meeting that unwritten law forbids any discussion about salaries at meetings of the medical assistants.

Fortunately, many physicians have recognized the educational potential of the AAMA and have supported it vigorously. Some of the girls in Dallas told me that their employers had even helped them with the expenses of attending the annual meeting, since this represented an investment in improved office management.

The AAMA is composed of sincere, dedicated women who want to be of greater service to their

Reprinted from J.A.M.A. **175**:9, March 4, 1961.

*Immediate past president, American Medical Association.

employers, to patients, and to medicine. It supplements, but does not replace, any of the other paramedical groups, such as the nurses associations and the medical technologists.

When your office assistant tells you she would like to join AAMA, it is in your best interests, both professional and business, to encourage her. And if she asks you to speak before a meeting of her local chapter, you'll be doing your profession a favor if you accept.

I did, and I'm glad.

CALENDAR OF EVENTS

► Monday, November 20 ◄

PATHOLOGY SECTION, B.C.M.S.
8:30 P.M. Maryland General Hospital
1) PNEUMATOSIS CYSTOIDES INTESTINALIS—Presentation of a case and review of literature. Gus Dritsas, M.D.
2) GRANULOSA CELL TUMOR—Report of a case of an elderly woman with Leiomyomata Uteri and Hirsutism. Philip Brass, M.D.

► Saturday, November 25 ◄

MEDICINE 1961
3:30 P.M. WMAR-TV (Channel 2)
Sponsored by Baltimore City Medical Society
V.D.—U.S.A.—TODAY. Richard D. Hahn, M.D., William J. Brown, M.D., Robert E. Farber, M.D.

► Monday, November 27 ◄

MARYLAND ORTHOPAEDIC SOCIETY
4:00 P.M. Marty's Park Plaza

DERMATOLOGY SECTION, BCMS
8:00 P.M. 1211 Cathedral Street
HEREDITARY DYSTOPIC LIPOIDOSIS (ANGIOKERATOMA CORPORIS DIFFUSUM). Abdul N. Rahman, M.D., Associate in Neurology, The Johns Hopkins Hospital.

► Tuesday, November 28 ◄

JOINT ANESTHESIA STUDY COMMITTEE
8:00 P.M. 1211 Cathedral Street

► Wednesday, November 29 ◄

BALTIMORE ALUMNI CHAPTER OF ALPHA OMEGA
Fourth annual all day clinic
8:30 A.M.-4:30 P.M. Stafford Hotel
Surindar N. Bhaskar, D.D.S., M.S., Ph. D., will discuss
a. A new clinical approach to oral diagnosis
b. Findings in experiments with high speed, ultrasonics and audio-analgesia
c. Occlusal trauma and periodontal disease

► Thursday, November 30 ◄

MARYLAND OPHTHALMOLOGICAL SOCIETY
6:00 P.M. Sheraton Belvedere Hotel
PANEL DISCUSSION ON RETINAL DETACHMENT

► Friday, December 1 ◄

BALTIMORE CITY MEDICAL SOCIETY
8:30 P.M. 1211 Cathedral Street

► Tuesday, December 5 ◄

MARYLAND SOCIETY OF ANESTHESIOLOGISTS

► Friday, December 8-Saturday, December 9 ◄

AMERICAN RHEUMATISM ASSOCIATION
Eighth Interim Session
Clinical Center, National Institutes of Health

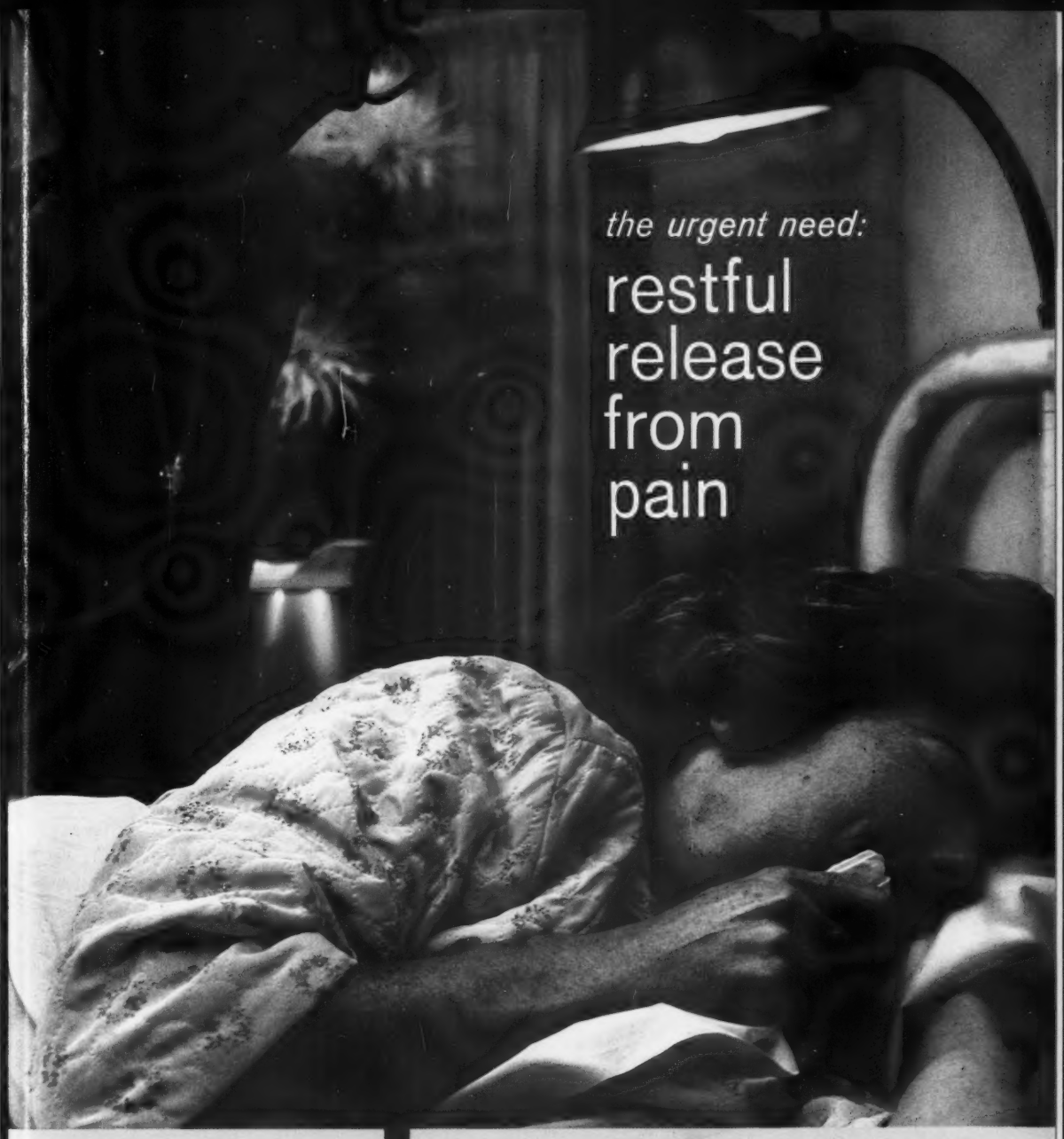
► Monday, December 11 ◄

SACRED HEART HOSPITAL MEDICAL STAFF
11:30 A.M.
School of Nursing
Bellevue Street, Cumberland

MARYLAND SOCIETY FOR MENTALLY RETARDED CHILDREN
GREATER BALTIMORE CHAPTER
9:00 P.M. Coca-Cola Building
Three prominent religious leaders will discuss
RELIGION AND THE RETARDED PERSON
For additional information, please call TU 9-5410

► Wednesday, December 13 ◄

CANCER SECTION, BCMS



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AHR AHR

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PHENAPHEN with Codeine ..... ¼ gr.

AHR AHR

PHENAPHEN No. 3

PHENAPHEN with Codeine ..... ½ gr.

AHR

PHENAPHEN No. 4

PHENAPHEN with Codeine ..... 1 gr.

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¼ gr., ½ gr., 1 gr.

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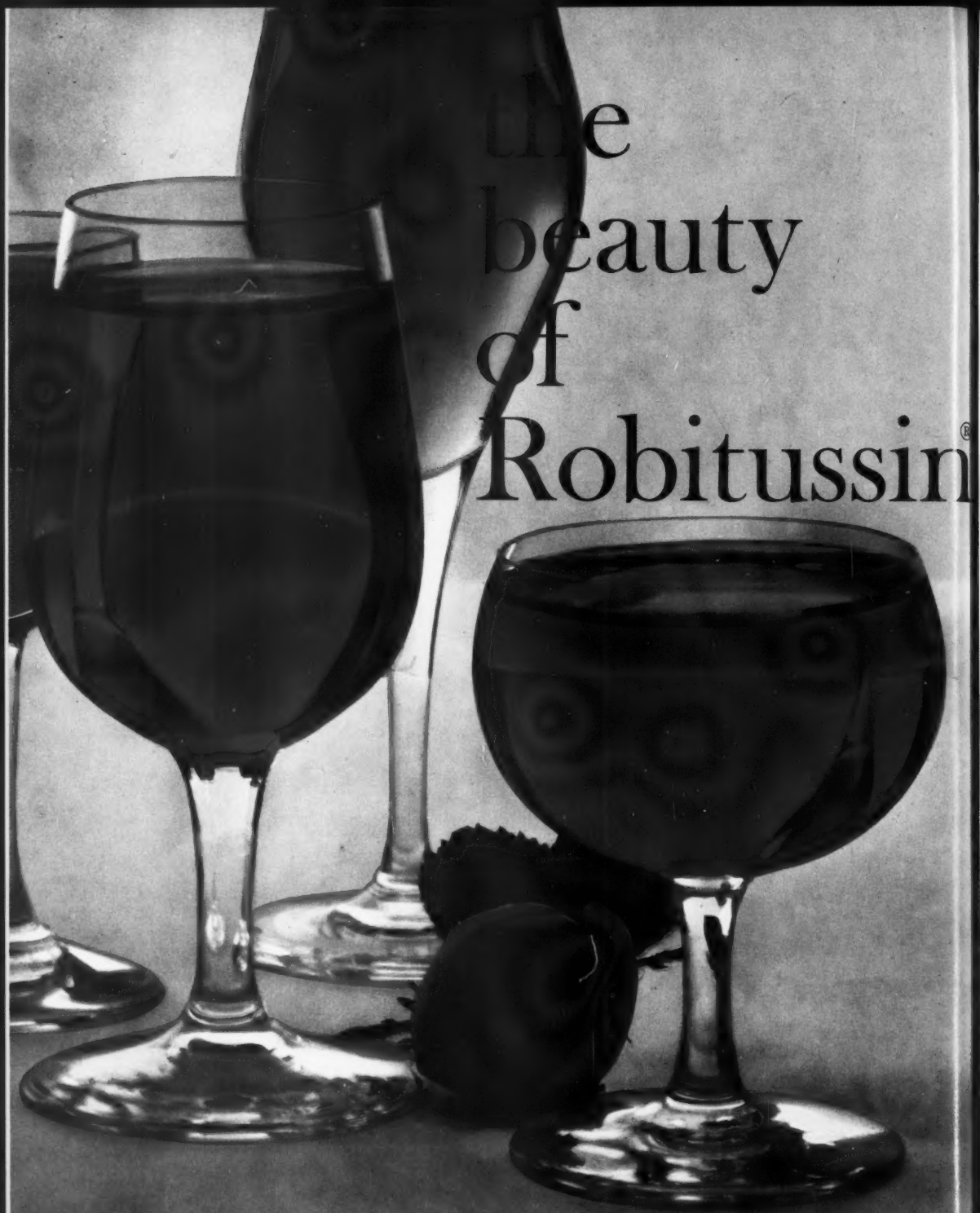

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Woman's Auxiliary
Medical and Chirurgical Faculty
MRS. WILLIAM S. STONE, *Auxiliary Editor*

NOVEMBER, 1961

DOCTORS' WIVES WELCOME FOREIGN VISITORS

A group of physicians' wives and foreign visitors on the steps of Davidge Hall, University of Maryland School of Medicine. Left to right: (Front) Mrs. Ramon Roig; Mrs. Marisa Aragona, Italy; Mrs. Maria Ayuso, Spain; Mrs. Anne LeGorgeu, France; Mrs. William S. Stone; (Back) Mrs. Yasushi Togo, Mrs. Albert Goldstein, Mrs. William Blake, Mrs. Frank Kaltreider.

A number of physicians' wives helped to promote international friendship by entertaining the wives of delegates to the 20th International Navigation Congress. They welcomed the visitors in their homes, escorted them to museums and fashion shows, and acted as interpreters at panel discussions and on tours.

The 20th International Navigation Congress, held in Baltimore September 11 to 19, drew distinguished visitors from fifty-two foreign countries. Those attending the Congress are members of the Permanent Association of Navigation Congresses, which was organized in 1881. The meeting in Baltimore was only the second meeting of this group to be held in the United States.

Among the doctors' wives who were hostesses to the visiting wives were:

Mrs. Edward S. Stafford, Mrs. Edward F. Cotter, Mrs. Wilford A. Councill, Jr., Mrs. Ralph G. Hills, Mrs. William G. Marr, Mrs. Curt P. Richter, Mrs. William F. Rienhoff, III, Mrs. John Tilden Howard, Mrs. William Dewey Blake, Mrs. Fernando Bloedorn, Mrs. Ramon Roig, Mrs. Carlo A. Cuccia, Mrs. Albert E. Goldstein, Mrs. D. Frank Kaltreider, Mrs. Henricus G. Kuypers, Mrs. Adelbart Schubart, Mrs. Yasushi Togo, Mrs. Theodore E. Woodward, and Mrs. William S. Stone.

The Johns Hopkins Hospital and the University of Maryland Schools of Medicine and Nursing were among the sights shown to the guests.

THE WOMAN'S AUXILIARY TO THE STUDENT AMA

With the start of a new school year, the University of Maryland Auxiliary to the Student AMA assisted the dean of the medical school by acting as hostesses to the incoming freshman class. They graciously served refreshments, mingled with the students, and warmly invited the wives to join the Auxiliary.

On the following Sunday the Auxiliary held its own tea to welcome the new wives. It was held on the patio of the Student Union Building. Entertainment included a hat show and a clever skit depicting hazards in the home. Mrs. Albert E. Goldstein, Mrs. Robert Garis, Mrs. D. C. Smith, Mrs. D. Frank Kaltreider, and Mrs. William S. Stone were guests.

At the Auxiliary's first meeting, on October 3, a panel of physicians' wives discussed "The Role of the Doctor's Wife in the Community." On the panel were Mrs. John O. Sharrett and Mrs. John M. Dennis, of Baltimore, Mrs. William Holbrook, of Prince George's County, and Mrs. Phillip Heumann, of Harford County. Mrs. William S. Stone was moderator.

The Auxiliary at the University of Maryland was runner-up for the Auxiliary of the Year award, presented in May at their annual convention in Chicago. Another honor for Maryland was the election of William Weglicki, of the University of Maryland Chapter, Student AMA, as president of the national Student AMA.

Wanted: TLC

Baltimore City Hospitals urgently needs volunteers to help provide the patients with some Tender Loving Care. Volunteers can do many things for the patients, such as feeding them, combing their hair, writing letters, reading to them, and playing games with them. As much as possible, volunteers are placed where they can best utilize any special interests or abilities that they have. Volunteers are needed not only in the general hospital, but in the clinics, the infirmary, and the tuberculosis hospital. Volunteers in the TB building would work only with patients who are ready for discharge.

For further information, please contact Mrs. Regina G. Bond, coordinator of volunteer services, Dickens 2-5400, Extension 280.